



Discovering Development and Conservation Opportunities in North Central Florida

**School of City and Regional Planning
Georgia Institute of Technology
Atlanta, GA**

This document has been prepared as part of the Applied Planning Studio (CP 6052) in the School of City and Regional Planning, College of Design, at the Georgia Institute of Technology.

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01

Introduction

Studio Description

Methodology

Findings

Studio Description

Our studio was contracted by Weyerhaeuser, a real estate investment trust and one of the world's largest private owners of timberlands, to develop alternative strategies for managing its 113,000-acre Lake Butler Forest properties in North Central Florida. Our strategies would function as a decision-making aid to guide the future development of the area, taking into account the pros and cons of our final strategies and the potential implications for adjoining landholdings and jurisdictions. In examining future development possibilities and evaluating potential alternative strategies, our team was asked to consider land use, economic development potential, urban design, transportation, and environmental factors to assess current conditions in the study area and identify relevant constraints and opportunities moving forward.



Fig 1.1 Team members work to refine scenarios with Professor Mike Dobbins.

At the outset of the semester, we were asked to utilize a 100-year timeframe in formulating alternative strategies. Among the things we were asked to consider over the 100-year time period were which lands might be conserved for natural assets and ecotourism, which would continue to be used for forestry, and which would be suited for industrial development, contextualizing our alternatives within the assumptions of changing market conditions and a changing climate. We were also asked to consider urban design opportunities and constraints related to the expansion of existing towns, as well as the possible location, size, and character of one or more new towns.

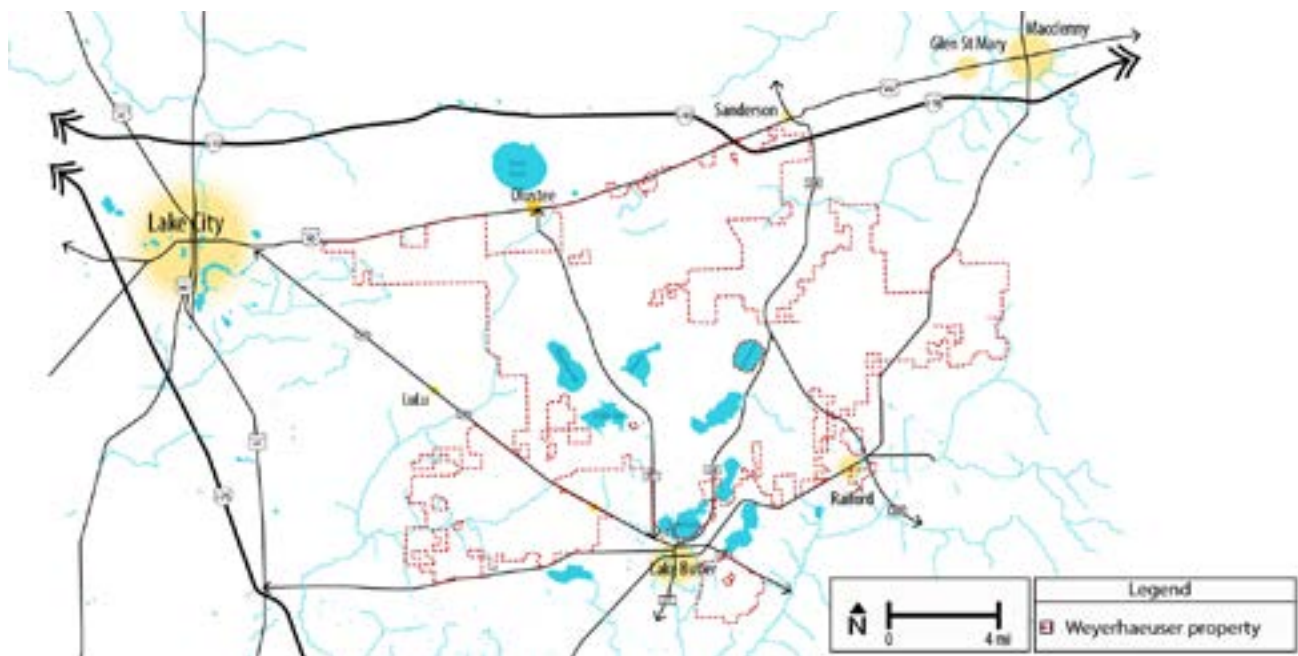


Fig 1.2 Regional map depicting the extent of Weyerhaeuser's property in North Central Florida.

North Central Florida

Weyerhaeuser's tract is a set of mostly-contiguous landholdings at the intersection of Baker, Columbia, and Union counties in northern Florida. These 113,000 acres are bounded by three significant transportation corridors – 1-10/US 90, US 301 and SR 100, plus CSX rail lines – and to date have been mainly used as timber resource lands. In fact, many of the parcels within the tract are still square – meaning, they haven't been subdivided since their original platting. Columbia County and its seat, Lake City, are the most populated and developed areas in the tri-county region.

Outside of Lake City, the area is mostly suburban and rural, with a population of about 113,000 in the three counties combined. Approximately 65% of the land within three miles of Weyerhaeuser's borders is agricultural, and large swaths are owned by other timber companies. The area lies between three major conservation zones: Osceola National Forest to the north, Lake Butler Wildlife Management Area to the southeast, and Ocala National Forest about 25 miles further south.



Fig 1.3 Logging road on Weyerhaeuser's property.

Methodology

Summer 2016

Data assembled and analyzed by Dr. William Drummond.

August 2016

Studio team assembled and briefed on project goals.

September 2016

Sub-groups formed to address foundational considerations, including Environmental Analysis, Land Development, and Economic Development.

A site visit provided context to understand local conditions in the project area. Initial analysis of data and formulation of strategy commenced.

October 2016

Environmental Analysis, Land Development, and Economic Development presented initial findings and received feedback during a series of formal presentations. Initial analysis was refined to include new information, comments, and concerns.

November 2016

Feedback and refinement process continued. Sub-groups convened and reassembled to build practical scenarios befitting the project area's local conditions, future needs, and regional vision.

December 2016

Project deliverables including final presentation and a professional report prepared and submitted to Weyerhaeuser.

Georgia Tech Professor William Drummond laid the foundation for the team's analysis by assembling GIS datasets and existing plans for the project area. These dataset included jurisdictional boundaries, land use, transportation, environmental systems, and potential sea-level-rise displacement. A 50-year, business-as-usual population and development scenario was included, as were Florida 2060 and Florida 2070, the development projections created by 1000 Friends of Florida. Existing maps of the region, relevant city and regional plans, and case studies of comparable work rounded out the initial information-gathering.

In the next phase, the student team received a comprehensive orientation to the project scope and organized into teams to explore themes that would guide the exploration of alternatives. Initial research, brainstorming and a site visit to the area led to the creation of early diagrams (below) and important themes. Ultimately, the analysis was viewed through the lenses of nature and the environment, economic development, and land development, keeping in mind how the region might prepare for and embrace the changes that would occur over the next 100 years.

Finally, these analyses produced areas of interest that were aggregated into two final alternatives.

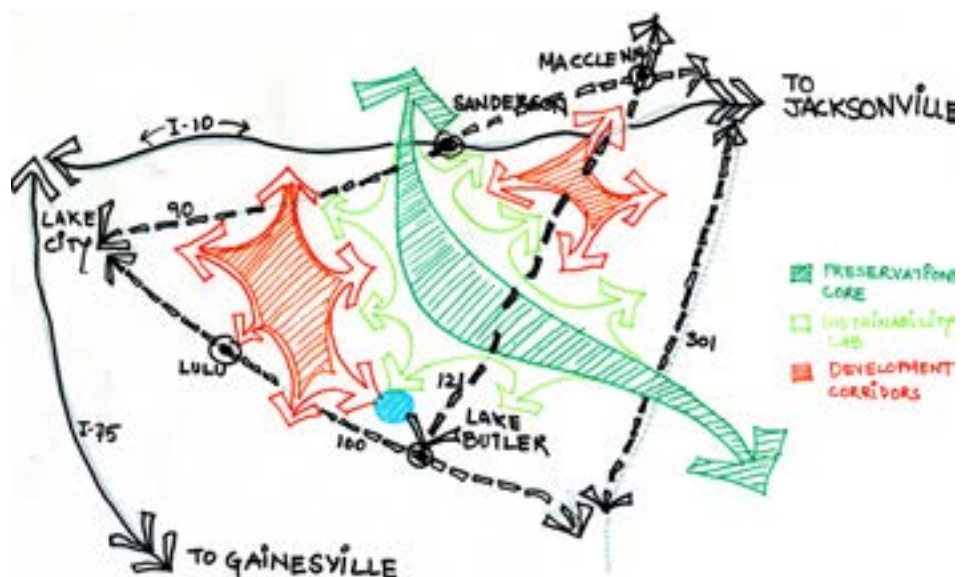


Fig 1.4 Early conceptual map of potential development and conservation areas on Weyerhaeuser's property.

Findings

Based on environmental, economic development, and land development research, as well as Weyerhaeuser's interests, the team created two alternatives, each composed of subareas divided into potential conservation and development zones. The alternatives seek to take advantage of the region's existing assets and growth potential while establishing a conservation corridor that will benefit the region and state for the next century.



Fig 1.5 Character area diagrams



Fig 1.6 Scenario 1 Initial proposal

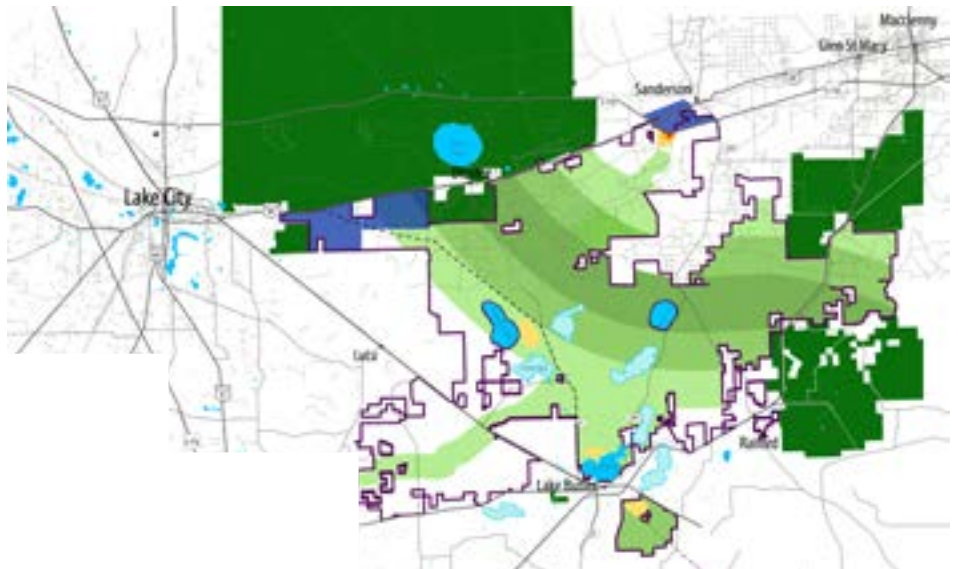


Fig 1.7 Scenario 2 Initial proposal





02

Vision

“Over the next several decades and beyond, the Weyerhaeuser land holdings will evolve into a national model for land conservation and will, in light of forces such as rapid urbanization and technological change, develop a strong and diverse economic base, spread between existing and new communities, that leaves the area poised for continued sustainable growth.”

*Forces of Change
Strategy Proposals*

Forces of Change

One hundred years is a period of momentous change, to say the least. In 1916, World War I was in full swing, causing upheaval across Europe; fewer than 30% of Americans had access to electricity, a phone, a stove or an automobile; a loaf of bread cost 7 cents, a gallon of gas 15 cents, and reasonable monthly rent was \$25. At the time, just 4 million people populated New York City and fewer than 1 million people resided in the entire state of Florida. Weyerhaeuser was well-established by 1916, but still young, and the changes that have occurred within and around the company since then would have been unimaginable.

When contemplating the potential for conservation and development efforts in North Central Florida over the next 50 to 100 years, it became clear that some overarching forces have formed the foundation of our actions and expectations. While there are more factors that affect the future than can be named here, it would be reasonable to expect that innovation, the shifting global economy, and climate change will continue into the next century and continue to affect the way we live and work.

Perhaps the most potent force is technological innovation, the scale and pace of which few could have predicted even a dozen years ago. Smart technology promises to continue evolving communication with our families and fellow citizens, as well as the way we consume information. Cars drive themselves, and an increasing number of robotic processes handle manufacturing and analytical tasks; these only await mainstream embrace by consumers, businesses and regulatory systems.

Technology is both a driver and product of shifts in global competitiveness. There are new job titles, new pressures, new consumer preferences, and the need for specific types of education to contend with a world in which jobs are untethered from physical location. The rise in the sharing economy helps underscore the fact that global competition creates a near-permanent economic uncertainty with which we will need to learn to be at ease.

Less tangible but no less important is climate change, which has already forced us to reconsider longstanding land use and conservation habits. Shifts in storm frequency, disaster intensity and water access expose communities' vulnerabilities and present

a daunting challenge. Better investment in energy use, business and home efficiency, and even public health are required in order to establish resilience and preserve our treasured communities.

With those forces always in mind, the studio team began to examine North Central Florida through three main lenses: nature and the environment, economic development, and land development.

Nature and Environment worked to establish a 100-year ecological legacy for the region, creating potential wildlife protection and human-use zones within conservation areas. The efforts were focused on the O2O corridor, the swath of protected lands and waters between the Ocala and Osceola national forests.

Land Development considered the alignment of new residential and commercial development with expected economic development opportunities and population shifts.

Economic Development targeted the next wave of industries with roots in the region, propelled by an understanding of how globalization, technology, education, and other forces might affect future markets.

The following sections will explain each lens' goals and strategies for achieving the overall vision.

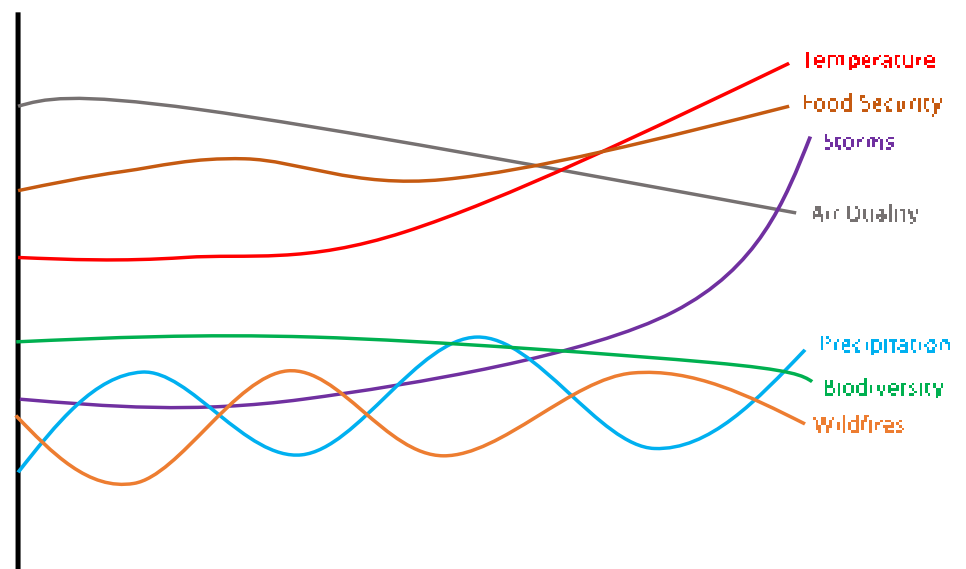


Fig 2.1 Working on a 100-year timeline, the team considered how impacts of climate change might manifest themselves over the course of the next century.



Vision 1

A protected and resilient environment

Goal: Preserve and enhance the abundant natural resources in Weyerhaeuser's land holdings to create a resilient ecosystem for humans and nature.



Climate resiliency

Create forward-thinking land models for conservation that establish and improve local, regional, and state climate resiliency.



Water resource management

Prioritize water quality and quantity, ensuring water remains an exceptional resource for the region for years to come.



Natural connectivity

Enhance connectivity across the region, linking conserved lands and habitats to mitigate fragmentation.



Vision 2

Sustainable economic development

Goal: Create a resilient regional economy that enhances quality of life while bolstering and diversifying Weyerhaeuser's portfolio.



Resilient economy

Invest in promising industries and innovations that leverage skills essential for an adaptive and resilient economy of the twenty-first century and beyond.



Workforce development

Support regional initiatives that seek to create a more competitive workforce.



Regional development

Encourage proactive regulatory frameworks that support regional economic prosperity.



Regional infrastructure

Promote expansion of regional services and amenities, such as high-speed Internet.



Innovations

Create an innovative yet authentic identity for the region based on existing strengths and development forces.



Vision 3

Land development opportunities

Goal: Explore Weyerhaeuser's opportunities to create new developments that accommodate future population growth and bolster economic growth while encouraging environmental conservation and respecting existing communities in the region.



Opportunities for development

Expand real estate development to support population and economic growth, as well as encourage infill development in existing communities.



Sustainable development

Identify priority areas for new developments that consider locations of existing infrastructure, natural amenities, and vibrant local communities.



Envisioning new communities

Determine appropriate form and character of new developments given projected population growth, demographics of surrounding communities, and anticipated economic opportunities in the region.



03

Existing Conditions and Process

Existing Conditions

Environment

Economic Development

Land Development

Existing Conditions

The study area – comprising the counties of Baker, Columbia, and Union – is home to more than 113,400 residents. The tri-county area is projected to experience slight growth in the coming years, with a forecast of less than one percent over the next five years (ESRI, 2016). Columbia County is the largest county, with approximately 69,600 residents. Baker and Union counties are significantly smaller, home to 28,091 and 15,729, respectively.

	Baker	Columbia	Union
2016 Population	28,091	69,599	15,729
Median Age	36.6	40.6	39.7
Diversity Index*	32.8	46.0	47.1
2021 Projected Population	28,748	70,626	15,707
2016 Households	9,123	25,282	4,151
Median Household Income	\$49,437	\$37,822	\$40,157
Median Home Value	\$131,504	\$120,594	\$98,365

Table 3.1 Area demographics

(ESRI, 2016)

*The Diversity Index measures the probability that two people from the same area will be from different racial or ethnic groups.

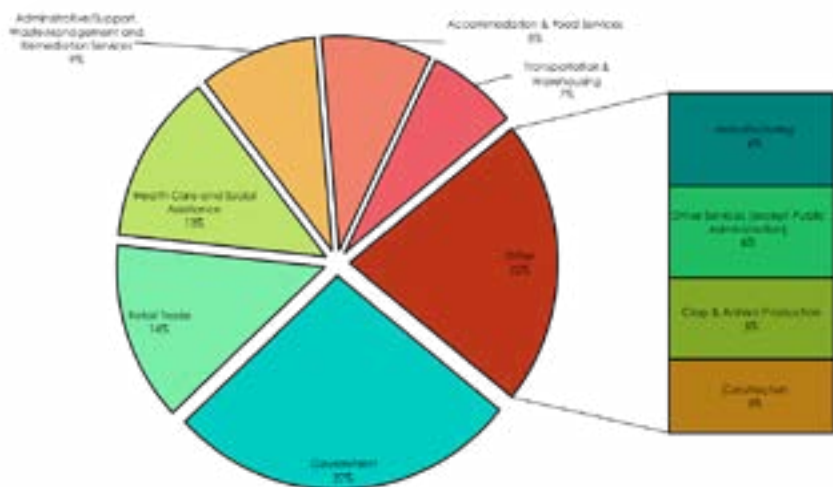
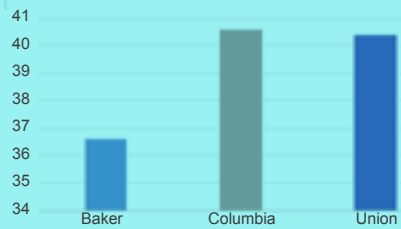


Figure 3.1 Top industries by employment

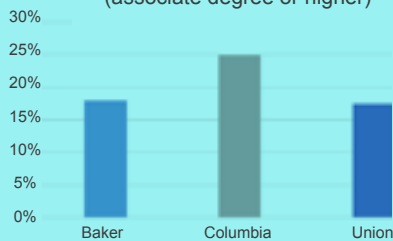
Given current employment estimates, Government, Retail Trade, and Health Care are the largest industry sectors in the region. The government sector especially dominates employment in the region, largely due to the high concentration of prisons in the area.

Median Age



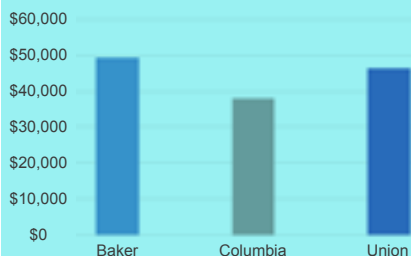
The area is aging, aligning with national trends.

Educational Attainment
(associate degree or higher)



Educational attainment lags in the area. The proportion of adults with an associate degree or higher falls at 25 percent or below in each county.

Median Household Income



Median household income falls below \$50,000 in each county in the area, slightly below the national observed figure.

(Source: ESRI, 2016)



Figure 3.2 Fastest growing industries

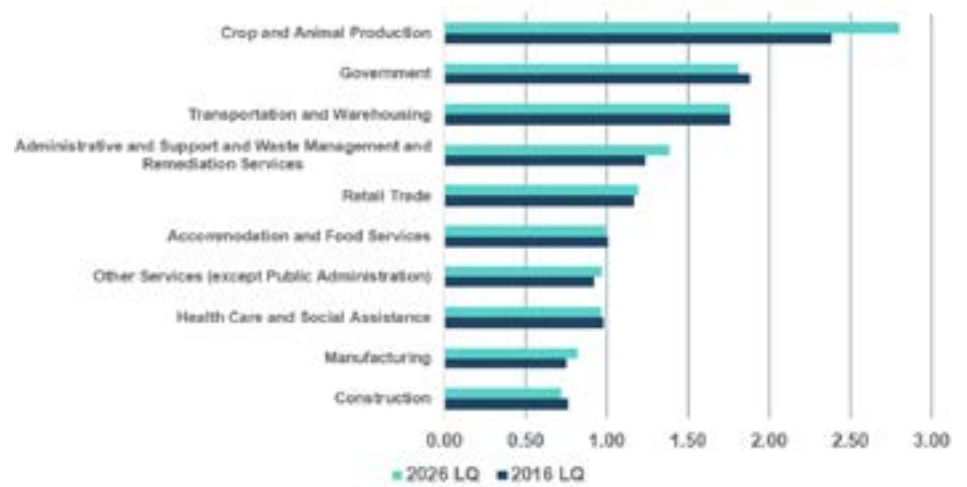


Figure 3.3 Most competitive industries by location quotient (LQ)

Environment

Focus

Environmental considerations were focused on enhancing the utilization of Weyerhaeuser's land by preserving the most critical natural resources. Contemporary variables such as existing development, adjacent land ownership, local industry, and the local economy, were considered alongside future factors including the impacts of climate change, projected human population dispersal, statewide development patterns, and proposed conservation areas throughout Florida. The environmental planning process revolved around the concepts of connectivity, economic viability, and the balance between preservation and development.

Concerns

Given a 100-year planning timeframe, environmental concerns can range from the individual project level to a global scale. Within the context of Weyerhaeuser's property, both discrete and wide-ranging considerations have proven pertinent to the environmental impacts that can be anticipated over the course of a century.

Climate change will unquestionably transform the State of Florida over the next 100 years. The study area can expect climate migrants from coastal Florida regions, an increase in average and extreme temperatures, an intensification of precipitation and hurricane-force storms, increased variation in seasonal extremes like drought and flooding, and the spread of invasive species, pests, and tropical disease carriers like mosquitoes.

As Florida continues to develop, the preservation of natural resources has become a paramount consideration for the state's remaining wild areas. Weyerhaeuser's property contains many valuable habitat areas, such as extensive wetland coverage, and is located between two large national forests, Osceola National Forest to the north, and Ocala National Forest to the south. Intact and contiguous ecosystems are an asset to Weyerhaeuser's land holdings, and provide both distinct advantages and responsibilities.

The balance between development and conservation must be considered at every turn when large, contiguous parcels are evaluated for growth and expansion of the built environment. Because of the inherent value and strategic location of Weyerhaeuser's land holdings, development proposals in this region must be anticipated

and thoroughly vetted for environmental impacts. An important consideration that must be taken into account before initiating development activity is the economic value of conserving land, as ecosystem services like stormwater management, heat reduction, and carbon sequestration can be quantified in economic terms. Conserved land also has recreational value, which should not be overlooked in evaluating the costs and benefits of conservation over development.

Process

The environmental review process generally adhered to an incremental approach, gathering new information as needed, incorporating relevant data, and balancing other interests. The process included the evaluation of environmental assets and existing conditions in an ecological analysis, the placement of a wildlife corridor, integrating economic development and land use proposals, and making amendments as needed. The Florida Natural Lands Inventory Critical Lands and Waters Identification Project (CLIP) was used as a baseline analysis of the area's natural assets. Natural resources were then re-assessed using individual CLIP layers to create a unique analysis methodology. Conservation priority areas 1-3 were established by combining the top priority areas from each of the CLIP layers, including wetlands, surface waters, biodiversity, floodplains, and rare species sightings. The outcome of this analysis was the creation of a spectrum of environmental priority areas, which served as the foundation for the development of future economic and real estate scenarios. Other components of the ecological analysis included the identification of existing and proposed conservation areas, connectivity potential, habitat fragmentation, climate change migration paths, locations of endangered species, the reduction of edge effects, and a review of existing uses, including forestry, industry, residential areas, and the character of development and sprawl in the region.

A review of the Florida Wildlife Corridor and 1000 Friends of Florida 2070 Plan informed the formulation of a wildlife corridor proposal for the property. The corridor will ensure wildlife connectivity in perpetuity, supply opportunities for preservation and enhancement, and potentially provide mitigation areas for regional development. The corridor will be spatially integrated with developments in the Sanderson and Lake Butler areas, a potential new roadway



Two conservation models developed and used to prepare scenarios.

bisecting Weyerhaeuser's property, and existing development in Lake City, as well as isolated buildings along the U.S. Interstate 90/Florida 10 roadway. Several models for the wildlife corridor were considered, including two distinct formulations; one focused on overall connectivity and another focused specifically on the protection of water resources. Ultimately, the connectivity model best reduced fragmentation and edge effects, such as the proliferation of invasive species, encroachment of light and noise pollution, and temperature changes, while encompassing a variety of ecosystem areas and working towards the ultimate goal of connecting Osceola National Forest to Ocala National Forest.

Solutions

In order to balance conservation and development interests, a tool was created in Microsoft Excel to display the costs and benefits of preserving land in the region. Economic development and land use plans were integrated into the preservation and wildlife corridor plan through a series of meetings and discussions. Character areas were developed to guide the density and character of developments throughout the project area. Three character areas were delineated as having limited uses for the purpose of environmental preservation. A resulting Ecological Policy Guidance document provides recommendations; corridor and buffering specifications; allowable uses; and wildlife crossing recommendations for these zones. The location of the wildlife corridor may be adjusted depending on existing conservation lands, the quality of potential conservation areas, and the scale of development adjacent to designated conservation areas. Like the character guidelines, the wildlife corridor itself will have a gradient of uses within it, from the most protected core to the recreationally-attainable fringe areas. The planning process ultimately served to inform solutions by marrying conservation strategies with development scenarios in order to accommodate economic growth, human migration, and environmental preservation.

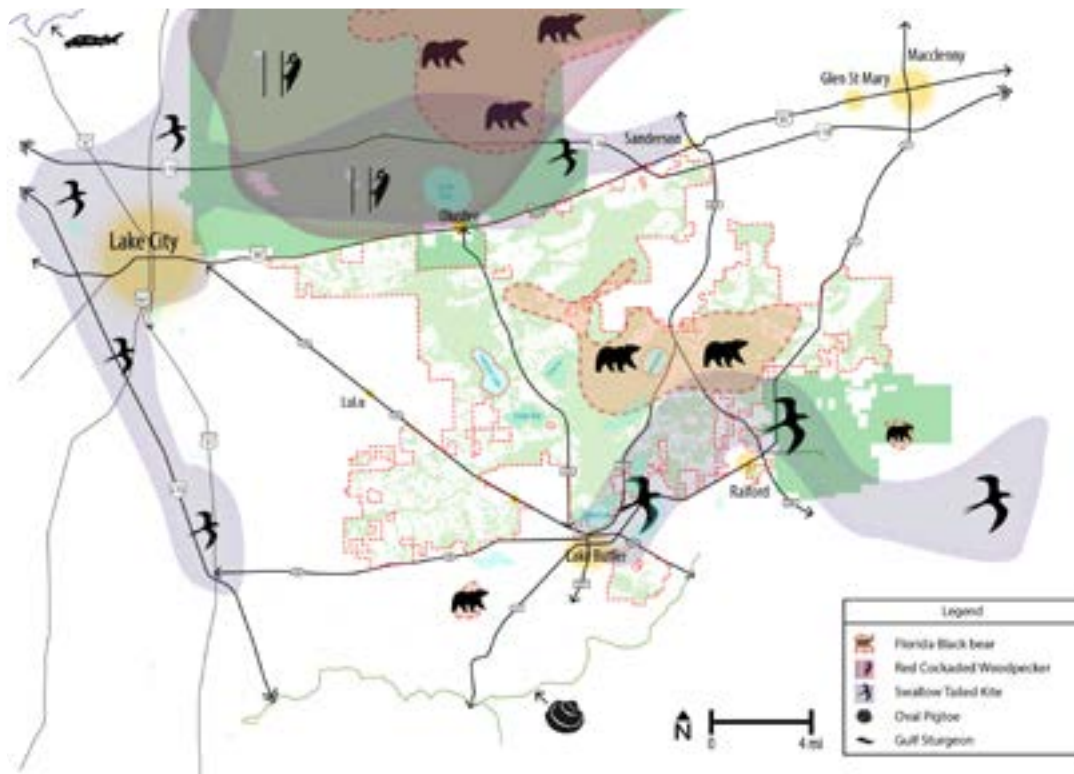


Fig 3.4 Endangered species' movement patterns

Weyerhaeuser's lands overlap habitat zones for a number of threatened and endangered species, including: the Florida black bear, gopher tortoise, red cockaded woodpecker, wood stork, and Gulf sturgeon.

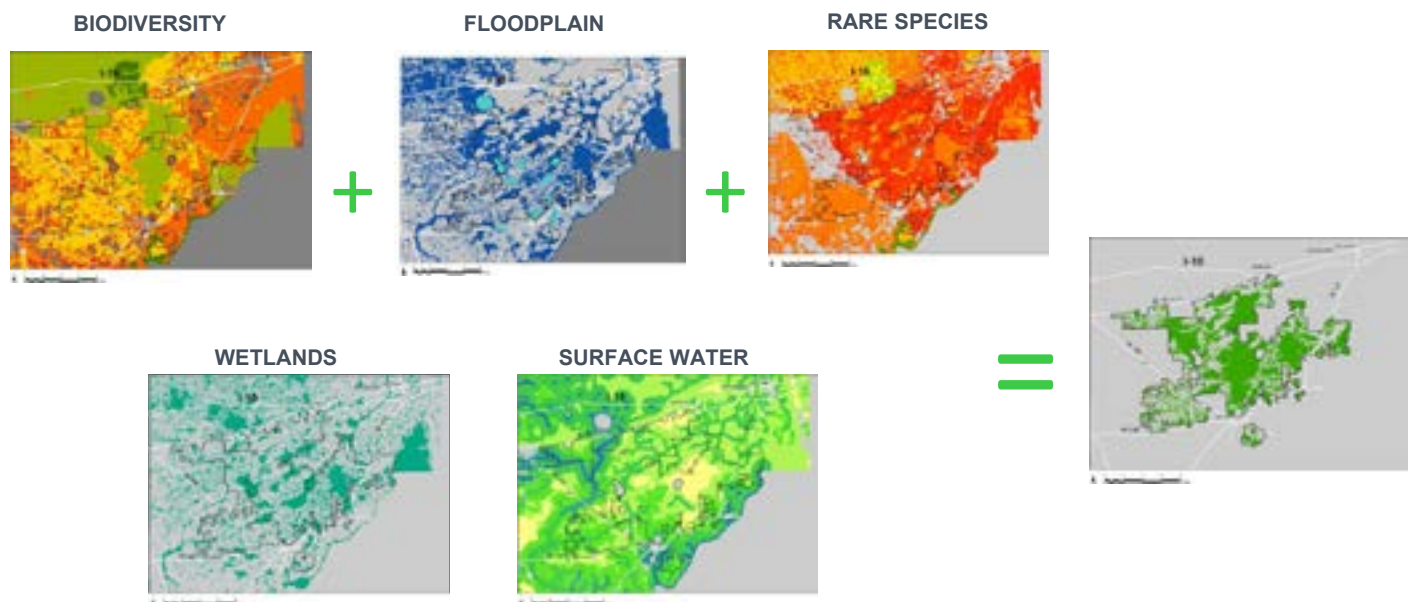


Fig 3.5 Environmental analysis with CLIP data

Economic Development

Focus

Economic development efforts emphasized Weyerhaeuser's investment in promising industries and innovations given existing regional strengths and anticipated development forces in order to leverage skills essential for an adaptive and resilient economy of the 21st century. The economic development planning process was informed by regional demographic, workforce, and industry trends as well as local character in an attempt to enhance quality of life while bolstering and diversifying Weyerhaeuser's portfolio.

Concerns

Sustained economic success is linked to the region's ability to anticipate implications of an evolving global landscape, including a growing population, shifts in consumer preferences, and changing climatic conditions.

Process

Foundational Systems and Character: In-depth demographic and occupational analyses were conducted to better understand the study area, including examinations of anticipated population growth, educational attainment, median household income, and primary occupational fields. Commute and labor shed trends were also evaluated to characterize the relationship between the tri-county region and surrounding areas, including the City of Jacksonville.

Promising Industries: With guidance from regional agency reports, the team assembled a set of target sectors attractive for growth and with promising economic returns, including:

Air Freight and Logistics: As e-commerce sales rise, so does air-cargo and the need for analytics efficiency. Shipping services like UPS and FedEx are relying more on airplanes to deliver high-value and perishable commodities to consumers at a faster rate. But available storage space at cargo-centric airports is quickly shrinking, demanding additional air cargo facilities that boast strong connectivity to overall transportation infrastructure.

Energy: Rising energy costs and the national push to energy independence support the investment in alternative energies, such as biomass and biodiesel, which can incorporate timber and agriculture wastes.

Currently the largest industries in the tri-county region are government (largely the correctional system), retail trade, health care and social assistance, and administrative/support. The Florida Department of Corrections, Columbia County School District, Wal-Mart Stores, Inc., and Timco Aviation Services, Inc. are the largest employers in the region.

Healthcare IT: The healthcare IT industry is revolutionizing the medical field by improving front-end, patient-facing systems as well as back-end systems in order to streamline care, increase efficiency, and reduce costs. As the population continues to age and the presence of disease vectors intensifies due to climatic conditions, this sector will likely prove even more significant.

Innovative Agriculture: As fresh-field farmers face extreme weather events, innovative agriculture practices like hydroponics and aquaponics will become increasingly attractive due to their technological superiority, which contributes to increased crop yields and bottom lines as well as year-round production.

Innovative Forestry: Cross-laminated timber (CLT) offers builders a more sustainable and cost-effective alternative in the face of rising building costs. Worldwide production of CLT grew at a compound annual rate of approximately 26 percent from 2008 to 2015, with Europe accounting for the majority of growth.

Asset Mapping

Suitable sites for development in each of the target fields were identified, with consideration for environmental priorities and proposed housing developments. Specifically, spatial characteristics (i.e., existing land uses and access to transportation infrastructure) necessary for existing and budding industries were identified to set the stage for investments in people-based programs.

Solutions

Potential areas of industrial development were intentionally branded with prioritization of environmental and real estate considerations. Weyerhaeuser should strategically market sites to the region's targeted sectors and should similarly evaluate internal interest in expanding CLT operations to the Southeast. Given its standing, Weyerhaeuser can also support a proactive policy framework to benefit the regional economy by promoting initiatives aimed at creating a more competitive workforce and the expansion of regional services and amenities.

Land development

Focus

Land development considerations focused on the client's desire for a proposal for at least one new development within Weyerhaeuser's property. The land development planning process explored opportunities for expansion of Weyerhaeuser's portfolio, including the development of new communities, expansion of existing communities and the diversification of timber, forestry, and agricultural land uses. Variables such as client preference, location and character of existing communities, adjacent land ownership and important regional industries were considered alongside future factors including projected population growth in Baker, Columbia, and Union counties, statewide development patterns, and proposed

Considerations

One of the central dichotomies in this study is the tension between urbanization and environmental conservation. In researching various development opportunities for Weyerhaeuser's property, it was important to also consider potential effects on the environment, the economy, and on existing communities within the region. The negative impacts of climate change on Florida's coastal regions expected during the next century highlight the importance of preserving natural inland resources while creating "climate refuges" for displaced coastal populations.

It is also necessary to consider the character of existing communities within the tri-county region in order to create development scenarios that are complementary yet diverse. New developments should aim to serve the needs of existing communities when applicable, whether by providing additional housing or employment opportunities for growing populations or by preserving unique amenities found within these communities.

Finally, Weyerhaeuser's company values of integrity, citizenship, and sustainability should be incorporated into land development proposals as the company seeks to create a lasting legacy in North Central Florida.

Process

The land development planning process began with the goal to expand and diversify Weyerhaeuser's portfolio in order to foster a strong and diverse economic base throughout the region. To accomplish this, a wide range of potential options for the use of Weyerhaeuser's land holdings were considered, including sustainable development, alternative agriculture, solar production, and mitigation banking opportunities. Ultimately, the scope of land development research was refined to focus specifically on the development of new communities and the revitalization of existing communities.

The locations and typologies of new developments were determined by considering environmental conservation and future economic activities in the region over a 100-year planning timeframe. Beginning with an assessment of various existing and proposed sustainable villages, several distinct typologies were identified and organized around different values and community needs. Additional quantitative data for each typology was gathered, including total population, median household income, median housing value, and other demographic variables. This ultimately resulted in the presentation of six development typologies based on Serenbe, Big Canoe, and East Lake Commons in Georgia, Northwest Landing in Washington, ReGen Villages in Amsterdam, and Auroville in India.

After formulating these typologies, potential locations for new developments on Weyerhaeuser's property were explored. Influential factors included the amount of land available for development and recommendations from a concurrent environmental analysis regarding conservation priorities. Then, appropriate character typologies devised from the case study research were assigned to each potential development.

Potential revitalization opportunities within the downtown areas of Lake City, Lake Butler, and Macclenny were explored by calculating build-out capacities of vacant or underutilized land and researching existing revitalization plans for each community. Specific recommendations regarding opportunities for downtown

revitalization were made based on several case studies from comparable communities, including Dahlonega and Thomasville in Georgia and Mount Dora in Florida. Revitalization strategies are included in the appendix of this report.

Solutions

Land development research culminated in the creation of two scenarios further explained in Chapter 5. In the first, new developments are anchored by a proposed limited access highway bisecting Weyerhaeuser's property. The second scenario prioritizes the protection of natural resources with a continuous conservation corridor. Both scenarios contain four potential developments located near Sanderson, Lake Butler, and Palestine Lake.

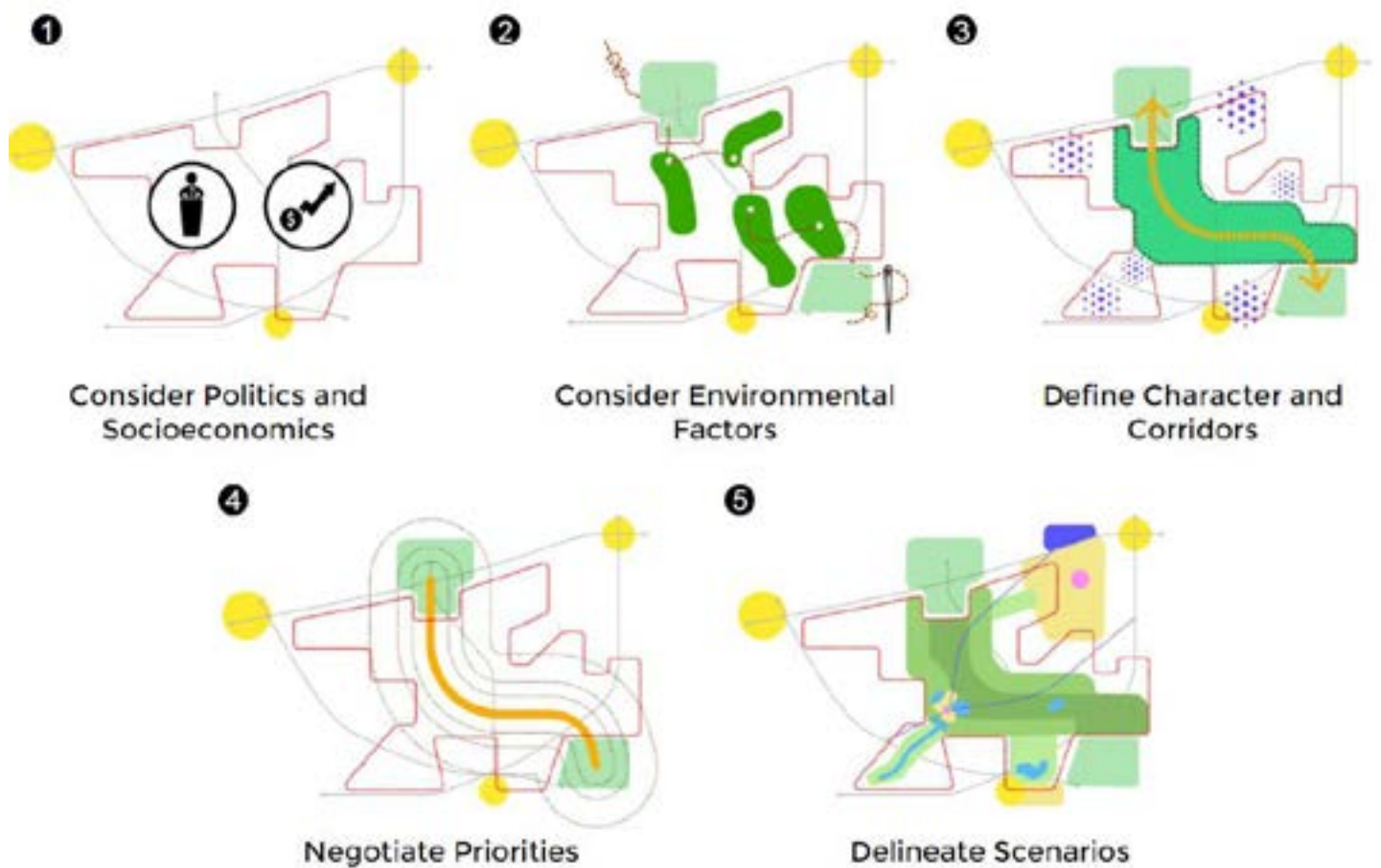


Fig 3.6 Conceptual diagram of land development process



04

Character Areas

Character Outline

Scenarios

Character Areas

Character Outline

To illustrate the character for the proposed areas, seven zones were created. These areas are known as “Character Areas” and are divided into seven zones, each with a unique character. The zones are titled:

Character Area 1 - Conservation Zone 1 - Core Conservation Zone

Character Area 2 - Conservation Zone 2 - General Conservation

Character Area 3 - Conservation Zone 3 - Balanced Conservation
and Low-Impact Uses

Character Area 4 - Rural Zone - Rural Development

Character Area 5 - Urban Zone 3 - Suburban Land Uses

Character Area 6 - Urban Zone 2 - In-town Development

Character Area 7 - Urban Zone 1 - Downtown Core

The seven zones provide the basis for community structure and vary by the ratio and level of intensity of their natural, built, and social components. They may be coordinated to all scales of planning, from the region through the community scale, down to individual lots and buildings.

These zones are a master planning tool that guide the placement and form of buildings and landscapes, allocate uses and densities, and appropriately assign such details as civic spaces and lighting. The zones increase in intensity of development towards the higher zones (Z5, Z6 and Z7) and decrease in density and development toward more agrarian and untouched natural zones (Z2 and Z1). Many human settlements are organized this way, with a walkable neighborhood as the center and a transitional area providing a natural gradient into the conservation area.

Each character area has its own unique rules for physical design that address issues such as building placement, streetscape design and setback requirements.



Fig 4.1 Character area diagrams

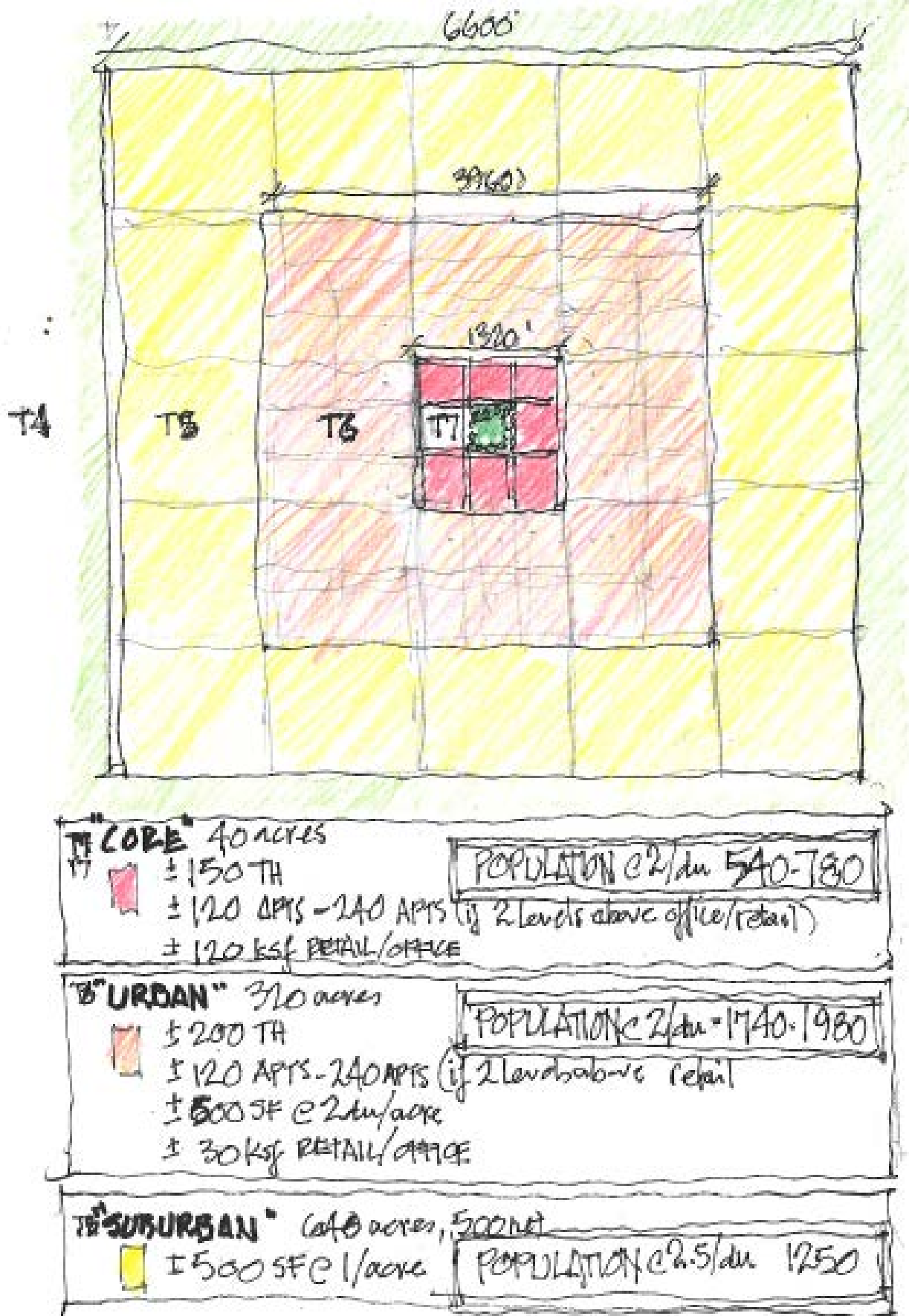


Fig 4.2 Conceptual sketch of a model urban development with metrics.

Core Conservation



General Conservation



Balanced Conservation



Rural Development



Suburban



In-town



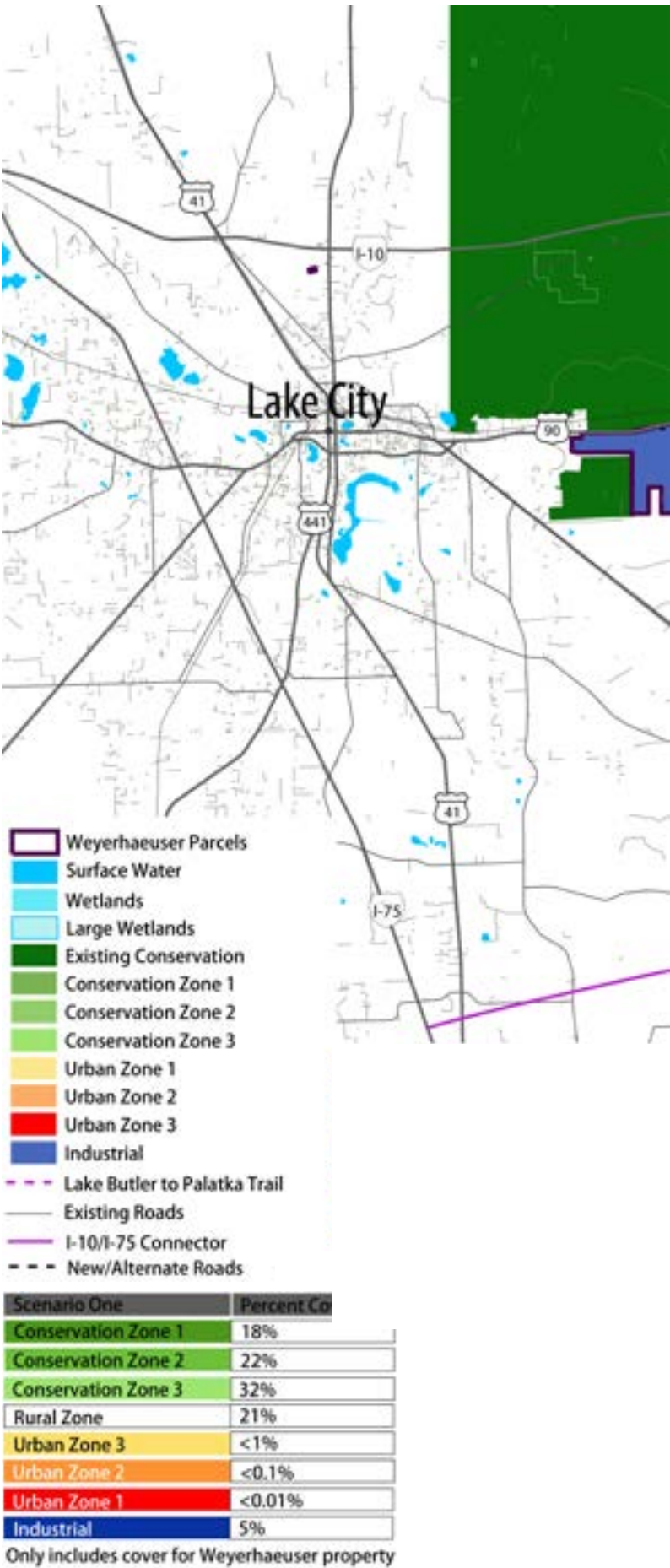
Downtown Core



Fig 4.3 Examples of character areas from site visit.

Scenario 1

The first scenario is defined by a proposed limited access highway bisecting Weyerhaeuser’s property from the northeast corner to the southwest corner. This vision also includes a conservation corridor, four potential new developments, an expansion of the North Florida Mega Industrial Park, and a realignment of county road 231 to better serve industrial areas to the north of the region. The purpose of the limited access highway is to create a more efficient freight route connecting I-10 to I-75 and increase accessibility between Jacksonville and the western coast of Florida. While all new developments in this scenario are viable without the addition of the limited access highway, we believe that the New Sanderson development would benefit from close proximity to the proposed highway. Additionally, the new developments are not necessarily interdependent; they can be developed separately as demand for new housing increases in different portions of the tri-county region. The construction of this highway would, however, negatively impact proposed connections between portions of the Florida Wildlife Corridor that crosses through Weyerhaeuser’s property. The proposed limited access highway and each new development are explained in further detail throughout this section.



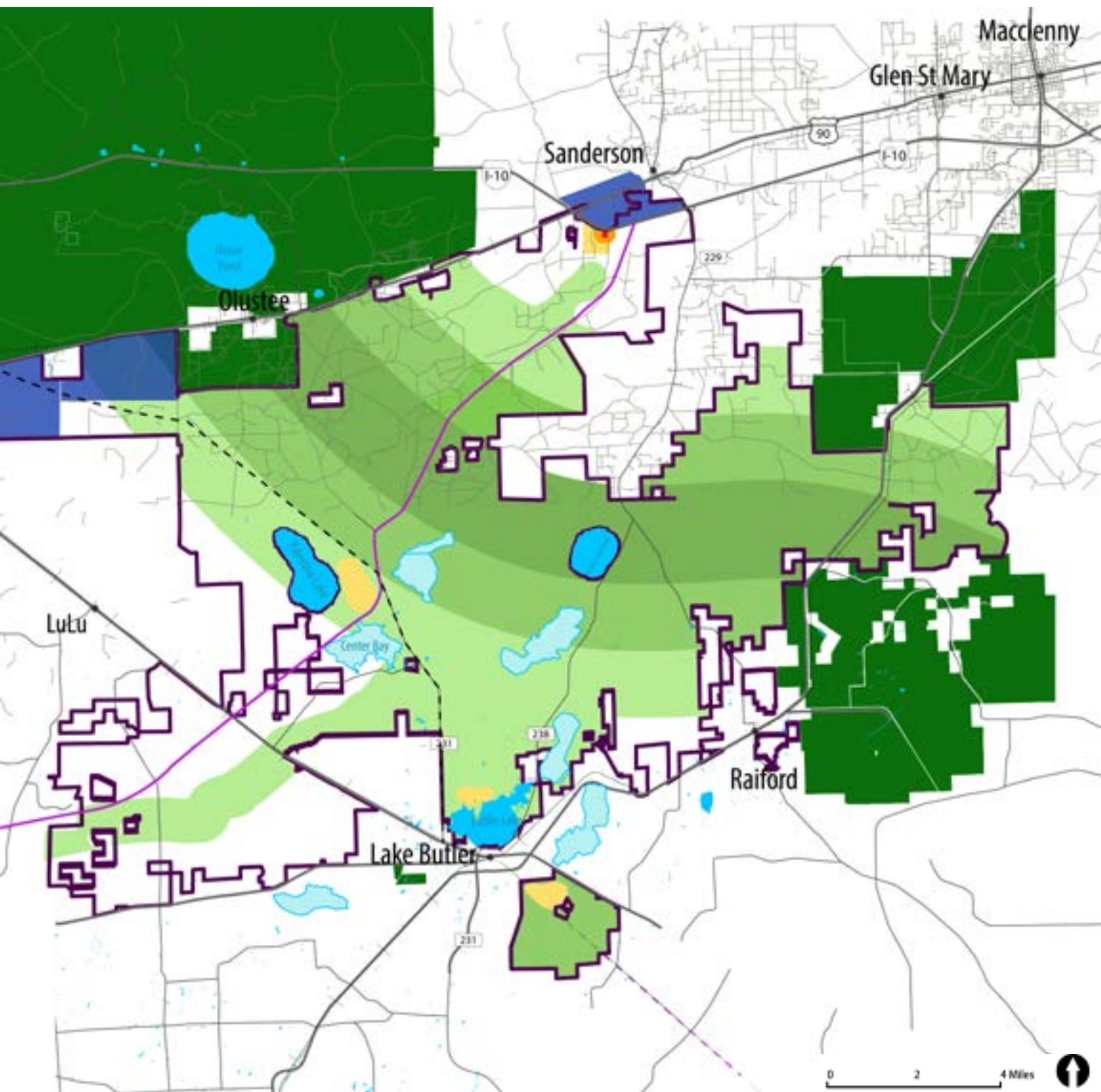
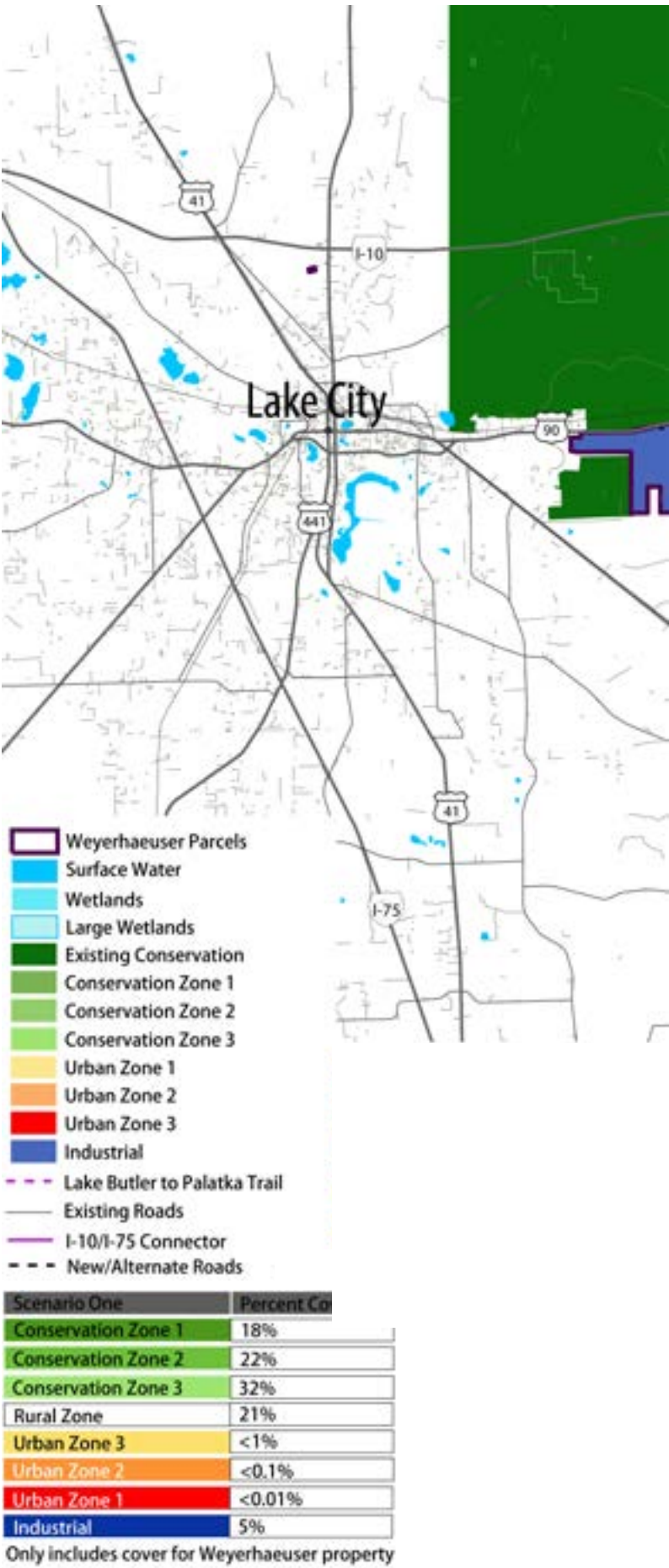


Fig 4.4 Scenario 1 Initial proposal

Scenario 2

The second scenario includes the same new developments but does not contain the proposed limited access highway. Instead, this scenario prioritizes connectivity between the Ocala National Forest and the Osceola National Forest by dedicating a continuous conservation corridor through Weyerhaeuser’s property. Preserving this corridor helps to protect important environmental features that are unique to the region while also allowing for new developments across the property. A continuous conservation corridor accommodates a greater network of natural and recreational infrastructure throughout Weyerhaeuser’s property that would otherwise be impeded by the limited access highway. The absence of the road also allows for more flexibility with future expansion of the proposed Palestine Lake development. Given the population projections for the tri-county region, we believe these new developments are still aligned with future regional demands for housing and economic growth, even without the proposed limited access highway. This scenario is particularly conscious of the negative impact that climate change will have across the State of Florida and proposes to act as a “climate refuge” for humans and nature alike.



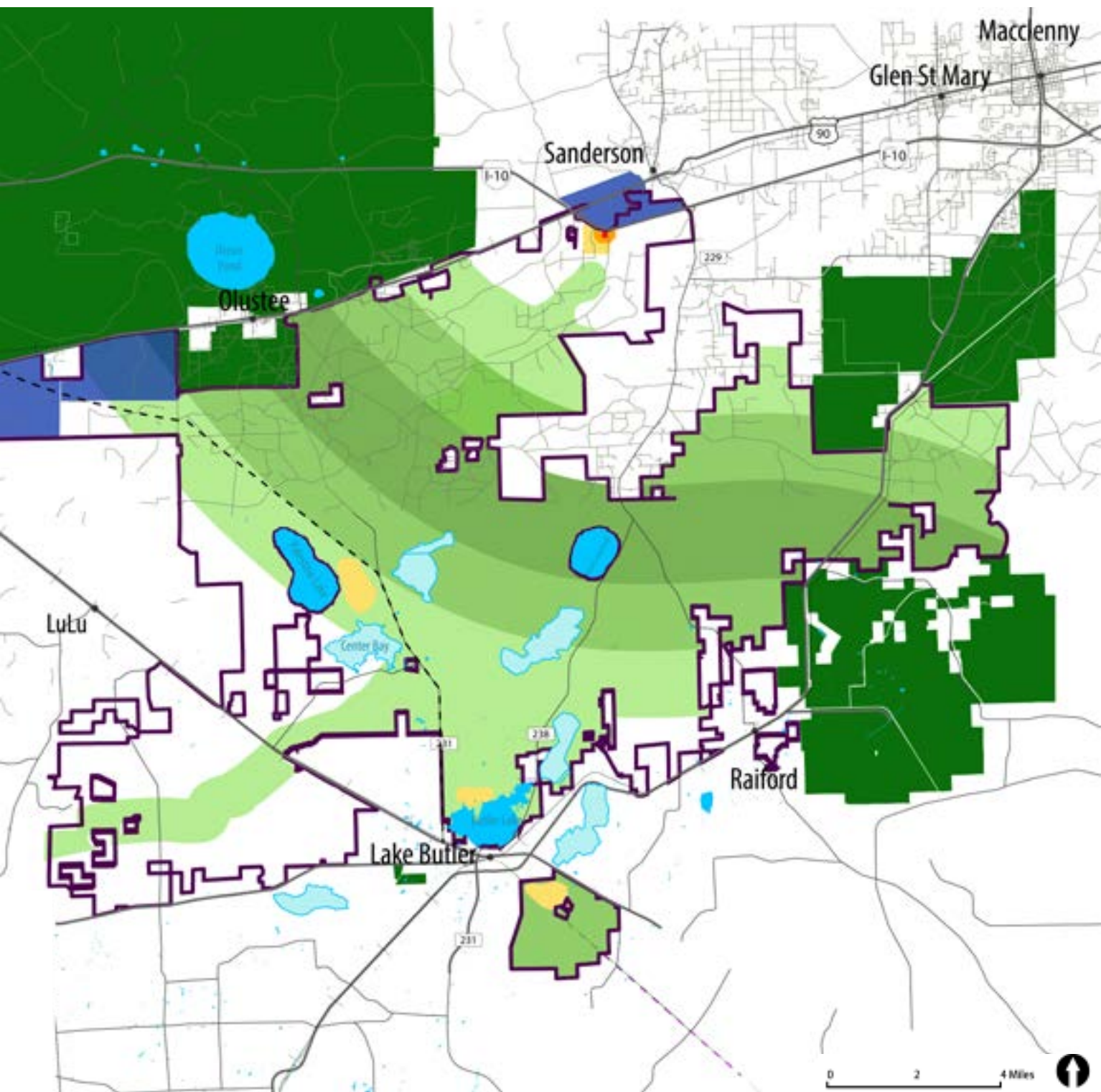


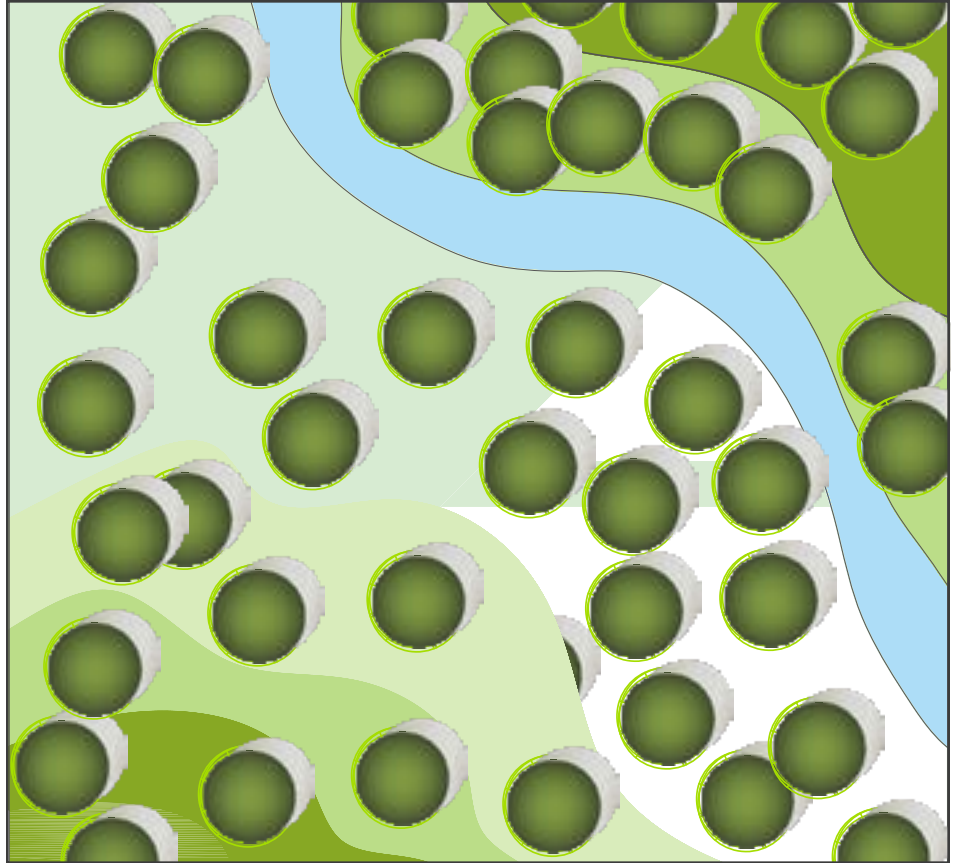
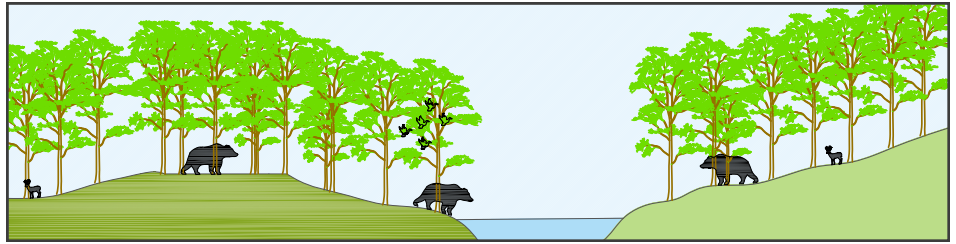
Fig 4.5 Scenario 2 Initial proposal

Conservation Zone 1

Core Conservation Zone

LAND USE & ZONING	Density	-
	Permissible uses	Conservation and restricted recreational uses (e.g., hiking and camping)
	Forestry and Agriculture	Forestry activities managed to limit impact to environment; agriculture not permitted
	Industrial activities	Industrial use not permitted
	Commercial	Commercial use not permitted
	Civic buildings	-
	Parks and open spaces	-
	Public access to water bodies and open spaces	Restricted public access determined by seasonal migration patterns

URBAN DESIGN	Open spaces	NA
	Water bodies buffer	1000' (mandatory)
	Protected habitat/ Corridors to be acquired	Migration patterns of endangered species permanently protected from development - Minimum of half-mile corridor - Design management guidelines to regulate human activities in and adjacent to the corridor
	Wildlife passages	Structural wildlife crossings where core conservation land meets roadways (mandatory)
	Building form	-
	Building components	-
	Setbacks	-
	Road type and quality	No off-site advertising



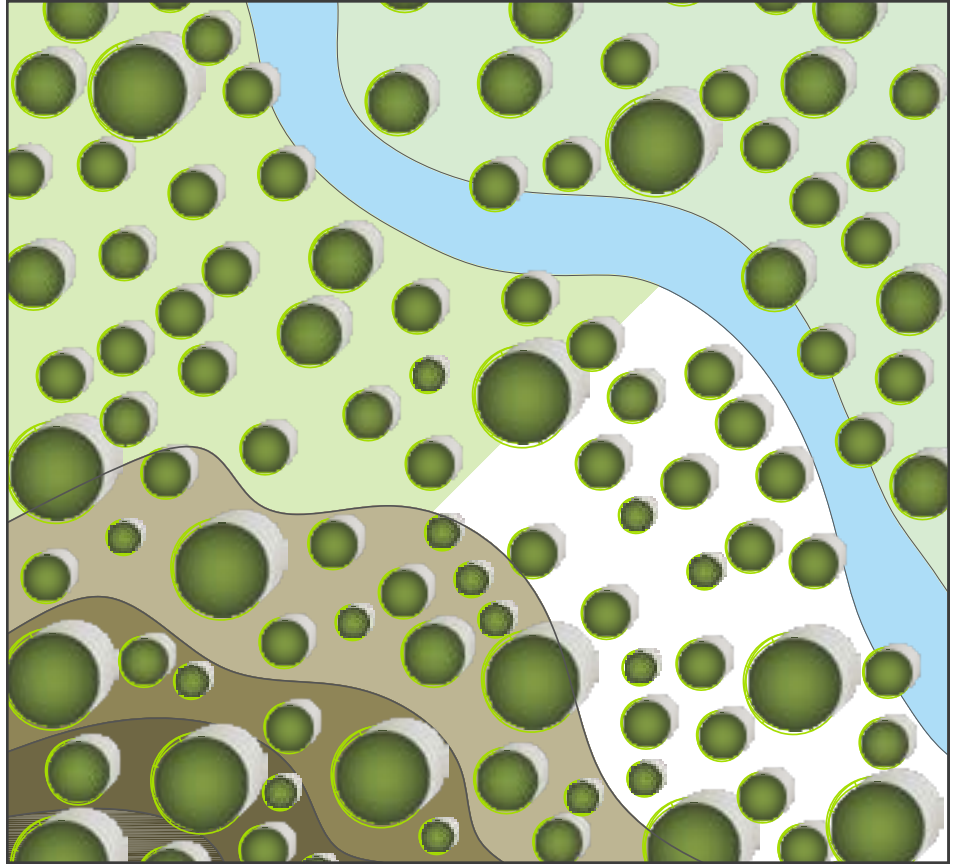
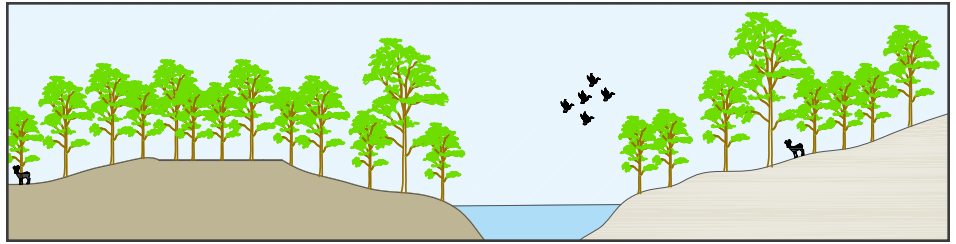
The Core Conservation Zone is the zone designated for the proposed O2O corridor. It is a protected habitat that will facilitate species migration in the region and will have restricted recreational uses that shall be determined seasonally. Industrial, agricultural, commercial, and residential activities shall not be permitted.

Conservation Zone 2

General Conservation

LAND USE & ZONING	Density	-
	Permissible uses	Forestry and restricted recreational uses (e.g., hunting and fishing)
	Forestry and Agriculture	Forestry permitted; Non-intensive agriculture consistent with natural resource values. Intensive agriculture permitted
	Industrial activities	Industrial use not permitted
	Commercial	Commercial use not permitted
	Civic buildings	-
	Parks and open spaces	-
	Public access to water bodies and open spaces	Yes

URBAN DESIGN	Open spaces	NA
	Water bodies buffer	500' (encouraged)
	Protected habitat/ Corridors to be acquired	Migration patterns of endangered species permanently protected from development - Minimum of half-mile corridor - Design management guidelines to regulate human activities in and adjacent to the corridor
	Wildlife passages	Structural wildlife crossings where core conservation land meets roadways (mandatory)
	Building form	-
	Building components	-
	Setbacks	-
	Road type and quality	No off-site advertising



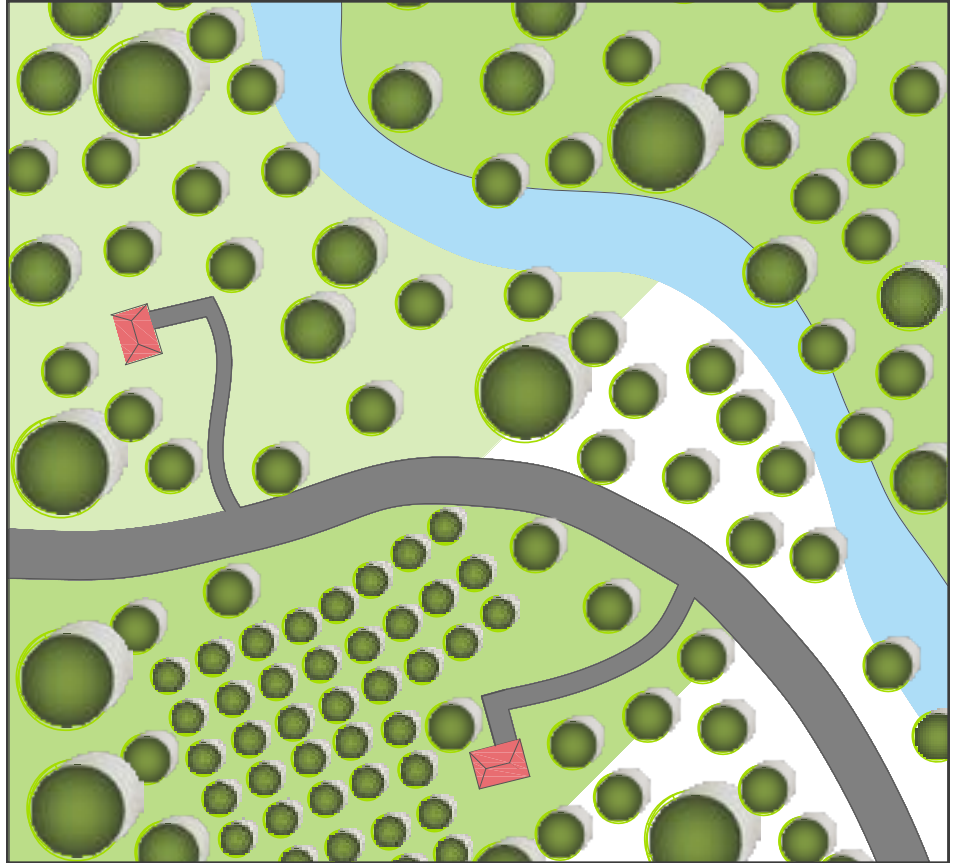
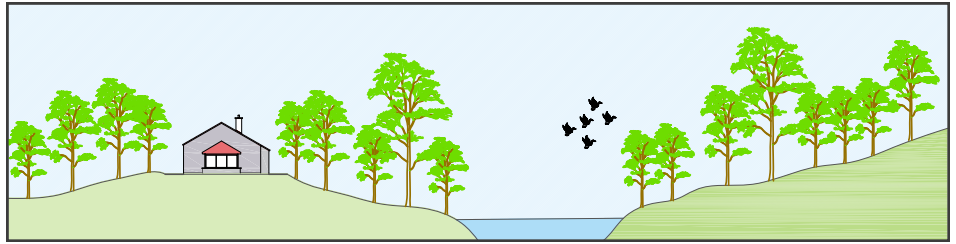
The General Conservation Zone is similar to Character Area 1, but shall be characterized by forestry and timbering activities. Character Area 2 will serve as a buffer for the priority conservation zone.

Conservation Zone 3

Balanced Conservation

LAND USE & ZONING	Density	1 unit/10 acre
	Permissible uses	Forestry, agriculture, recreational uses
	Forestry and Agriculture	Forestry and non-intensive agriculture permitted intensive agriculture allowed in limited areas
	Industrial activities	Industrial use not permitted
	Commercial	Commercial use not permitted, except for recreational and agriculture outposts
	Civic buildings	-
	Parks and open spaces	-
	Public access to water bodies and open spaces	Encouraged

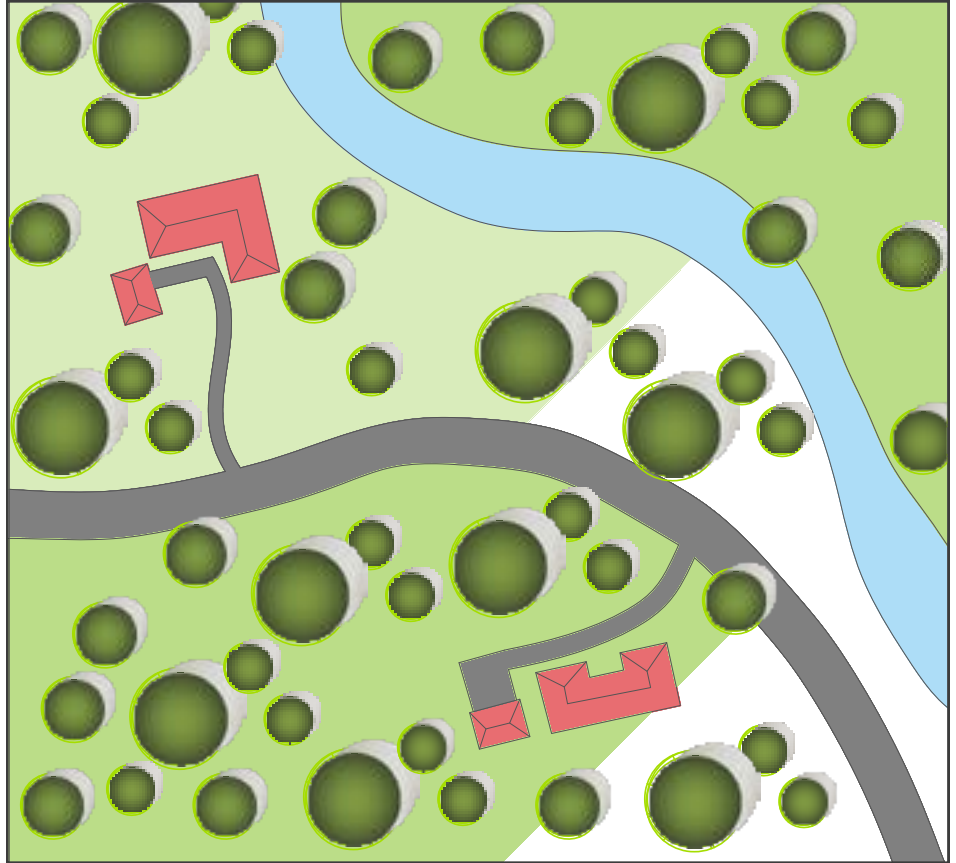
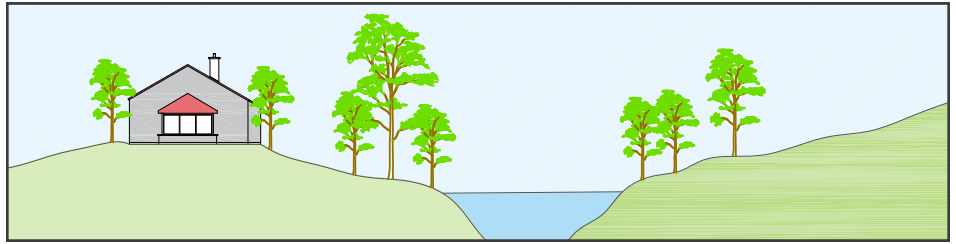
URBAN DESIGN	Open spaces	NA
	Water bodies buffer	330'
	Protected habitat/ Corridors to be acquired	-Migration patterns of endangered species permanently protected from development
	Wildlife passages	-
	Building form	Primitive structures such as public restrooms, gazebos, and recreational accessory buildings
	Building components	-
	Setbacks	Deep setbacks
	Road type and quality	Paved and unpaved rural roads; no off-site advertising



The Balanced Conservation Zone will act as a buffer to the more conserved lands from major human activities in the rural and urbanized zones. The area would be used for forestry, agriculture, recreational activities, and limited commercial activities to support the recreational and agricultural uses.

Rural Development

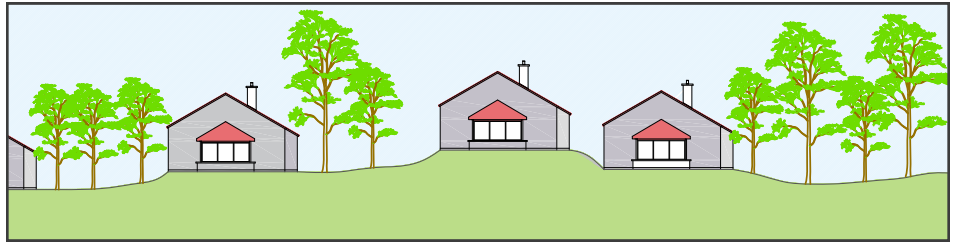
LAND USE & ZONING	Density	1 unit/10 acre
	Permissible uses	Primarily residential
	Forestry and Agriculture	Forestry not permitted; Non-intensive and intensive agriculture permitted
	Industrial activities	Industrial use as permitted by local zoning
	Commercial	Limited commercial
	Civic buildings	
	Parks and open spaces	Expansive and contiguous greenspace
	Public access to water bodies and open spaces	Encouraged
URBAN DESIGN	Open spaces	NA
	Water bodies buffer	330'
	Protected habitat/ Corridors to be acquired	Encourage clustering of rural development
	Wildlife passages	
	Building form	Detached buildings
	Building components	Yards and porches
	Setbacks	Deep setbacks
	Road type and quality	Paved and unpaved rural roads and highways with swales; no off-site advertising



The Rural Zone acts as a transition between the conservation zone and more urban areas. It is characterized as low-density development, with one unit per 10 acres of land. The area would not permit forestry, but may be used for agriculture or other uses such as commercial and industrial uses. The area would be primarily open space with occasional development as permitted.

LAND USE & ZONING	Density	1 unit/acre
	Permissible uses	Primarily residential
	Forestry and Agriculture	Forestry not permitted; For non-intensive and intensive agriculture: permitted in limited areas where compatible with suburban development
	Industrial activities	Industrial use as permitted by local zoning
	Commercial	-
	Civic buildings	Civic buildings (e.g.: schools, hospitals, libraries)
	Parks and open spaces	Ample greenspace
	Public access to water bodies and open spaces	Encouraged

URBAN DESIGN	Open spaces	Parks and Greenspace
	Water bodies buffer	100'
	Protected habitat/ Corridors to be acquired	-
	Wildlife passages	
	Building form	Detached buildings
	Building components	Yards and porches
	Setbacks	Deep setbacks
	Road type and quality	Paved roads and highways with sidewalks, street elements, swales; no off-site advertising



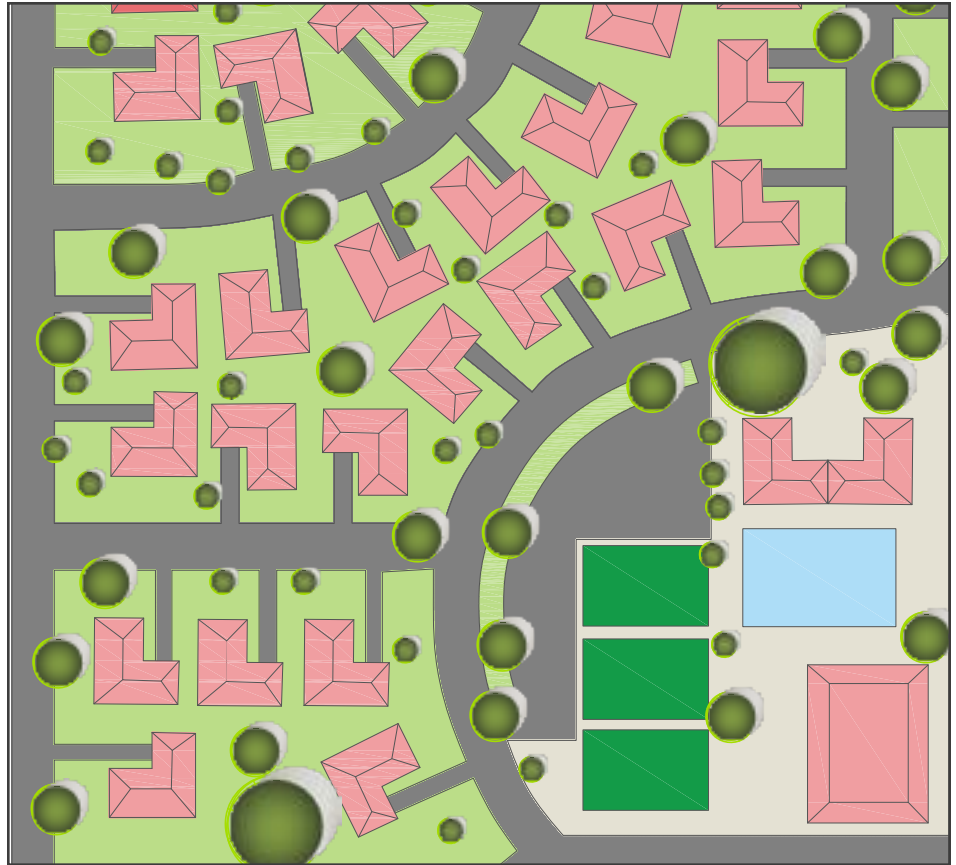
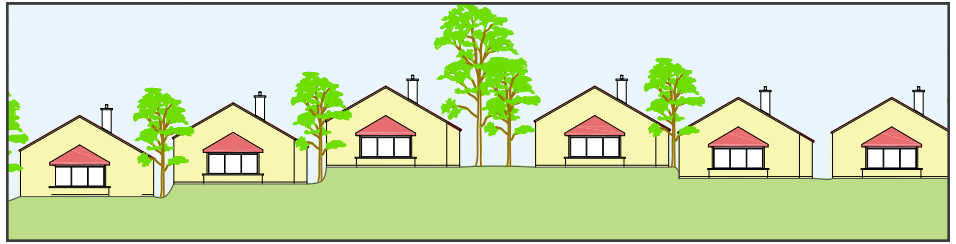
Urban Zone 3 serves as the lowest density urban zone and is primarily residential. This level of density is typically described as suburban, with limited agriculture allowed where compatible with suburban development, but no forestry allowed. This area would also permit commercial and office uses, as well as civic buildings, with ample green space surrounding these uses.

Urban
Zone 2

In-town

LAND USE & ZONING	Density	4 units/acre
	Permissible uses	Mixed-use
	Forestry and Agriculture	Forestry not permitted; Non-intensive agriculture not permitted. Small-scale urban agriculture encouraged (e.g., hydroponics and aquaponics)
	Industrial activities	Industrial use as permitted by local zoning
	Commercial	Commercial/Office
	Civic buildings	Civic buildings (e.g.: schools, hospitals, libraries)
	Parks and open spaces	Balance of greenspace, plazas, and gathering spaces
	Public access to water bodies and open spaces	Encouraged

URBAN DESIGN	Open spaces	Parks and Greenspace
	Water bodies buffer	75'
	Protected habitat/ Corridors to be acquired	-
	Wildlife passages	
	Building form	Detached buildings
	Building components	Yards and porches
	Setbacks	Shallow setbacks
	Road type and quality	Paved roads, lanes, and streets with sidewalks, street elements, shared bike lanes, street lighting, raised curbs, dedicated parking; no off-site advertising

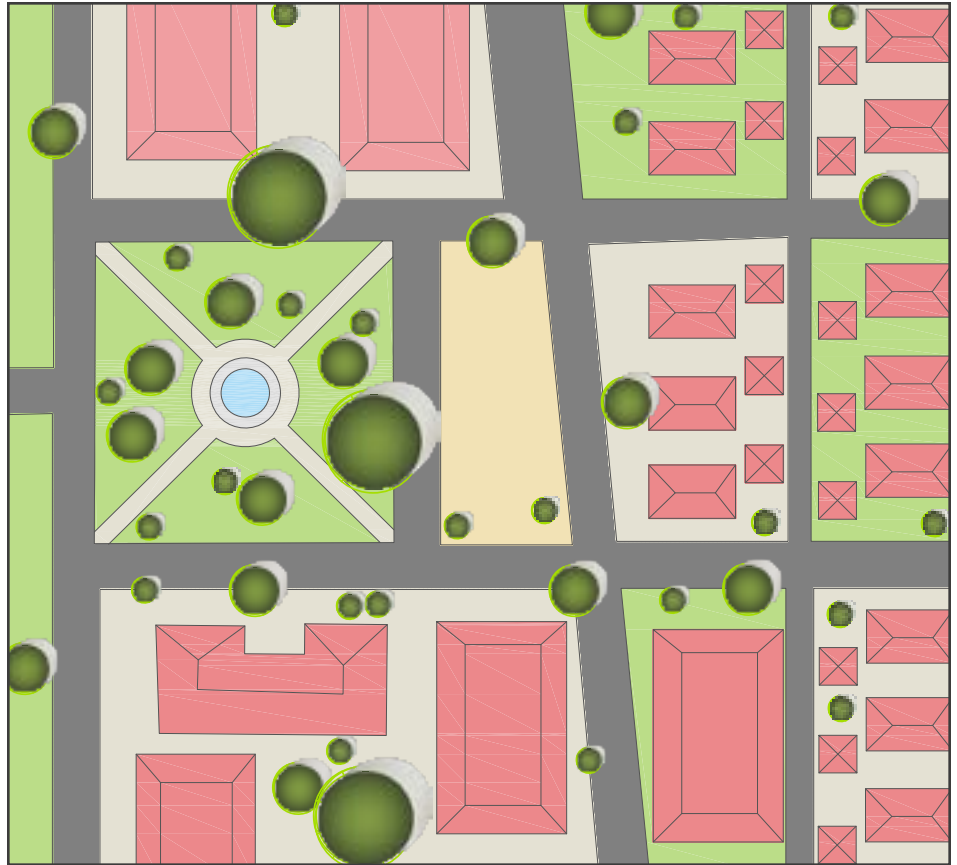
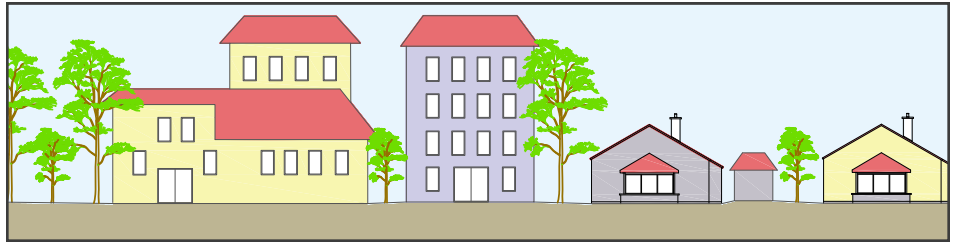


The Urban Zone 2 serves as a moderate density urban zone and a transition between Character Area 1 and Character Area 3. This zone is characterized as “in-town”, a mixed-use zone with residential, commercial and office uses. This area is close to the downtown core, but still permits single-family homes. In this zone, small-scale urban agriculture is encouraged, such as hydroponics and aquaponics, and industrial use is permitted subject to local zoning. This area has a balance of green space, plazas and gathering places.

Downtown core

LAND USE & ZONING	Density	4 units/acre
	Permissible uses	Mixed-use
	Forestry and Agriculture	Forestry not permitted; small-scale urban agriculture encouraged (e.g., hydroponics and aquaponics)
	Industrial activities	Industrial use as permitted by local zoning
	Commercial	Commercial/Office
	Civic buildings	Civic buildings (e.g.: schools, hospitals, libraries)
	Parks and open spaces	Balance of greenspace, plazas, and gathering spaces
	Public access to water bodies and open spaces	Encouraged

URBAN DESIGN	Open spaces	Parks, Greenspace, plazas, and squares
	Water bodies buffer	75'
	Protected habitat/ Corridors to be acquired	-
	Wildlife passages	
	Building form	Attached buildings
	Building components	Stoops and storefronts
	Setbacks	No setbacks
	Road type and quality	Paved roads, lanes, and streets with sidewalks, street elements, shared bike lanes, street lighting, raised curbs, dedicated parking; no off-site advertising



Urban Zone 1 is the most dense zone and serves as the downtown, urban core. This mixed-use area includes residential, commercial, and office uses. Similar to the in-town area, this zone has civic buildings, along with a balance of green space, plazas and gathering spaces.





05

Plan Details

O2O Corridor

The Road

New Sanderson

Lake Butler North

Lake Butler South

Palestine Lake

O2O Corridor

The Florida Wildlife Corridor (the Corridor) aims to connect important wildlife areas throughout the state into perpetuity. The Corridor, originally proposed by the Florida Wildlife Corridor organization, is located in the habitat zones of both federal and state listed protected species. At the federal level, 42 endangered species, 24 threatened species, and 15 candidate species reside in the Corridor area. The state of Florida includes an additional 176 endangered species, 56 threatened species, and 29 species of special concern as inhabitants of the Corridor zone (Florida Wildlife Corridor). The Corridor is not only intended for species habitat and migration, it also protects important scenic amenities. The Corridor Zone is crossed by 992 rivers and streams, including 1150 miles of designated paddling trails and 920 miles of the Florida National Scenic Trail. Invaluable natural resources, including surface waters and wetlands, are protected from the impacts of urbanization and sprawl through their inclusion in the Corridor.

At present, the corridor is composed of a kaleidoscope of lands under conservation, including 4.7 million acres of federal land, 4.5 million acres of state land, 162,776 acres of county and city land, and 204,232 acres of private land with permanent conservation status (Florida Wildlife Corridor). A remaining 6.3 million acres have been identified as important acquisition areas for the success of the corridor. These areas are priorities for the application of a conservation status in order to ensure connectivity and long-term success. Of these areas, the Florida Wildlife Corridor has designated several key areas as ‘critical linkages’, the preservation of which are imperative to the success of the corridor. The ‘O2O’ section of the Corridor has been identified as one such element of the statewide plan.

The O2O seeks to connect two of the largest remaining forest areas in the state. Weyerhaeuser’s land holdings are located within this unique geographic position between two national forests, Osceola National Forest to the north, and Ocala National Forest to the south. If protected, this contiguous land area would provide safe passage for wildlife, passive recreation opportunities, and the protection and restoration of Florida’s remaining environmental assets. The Raiford-Osceola Greenway Florida Forever Project, which includes 67,000 acres in the O2O area, is a natural migration corridor for the Florida black bear. Weyerhaeuser’s land holdings in North Central Florida are part of this critical linkage area, also serving as part of

an important migration route. Weyerhaeuser's land is an important missing link of the O2O Corridor proposal, with intact wetlands, forest, and potential contiguous wildlife connections spanning over 100,000 acres.

According to the Florida Wildlife Corridor organization, 6.3 million acres still need to be acquired to complete the statewide conservation corridor. Weyerhaeuser's land has been identified as a critical linkage, and the future of these lands will impact the development of the O2O Corridor and the Florida Wildlife Corridor as a whole.

Our proposed wildlife corridor within Weyerhaeuser's holdings has been divided into three zones of varying conservation intensity, Conservation Zones 1-3. The priority 1 zone represents core conservation, characterized by the highest environmental enhancement and restoration, with limited intrusion of any kind by human activities. Conservation Zones 2 and 3 represent a buffered gradient around the core area, with limited passive recreation allowed. As detailed by the Florida Wildlife Corridor organization, the inclusion of an O2O Corridor on Weyerhaeuser's land is an integral consideration of the land development process. As a direct reflection of Weyerhaeuser's values, the O2O Corridor will be a critical component of the company's legacy.

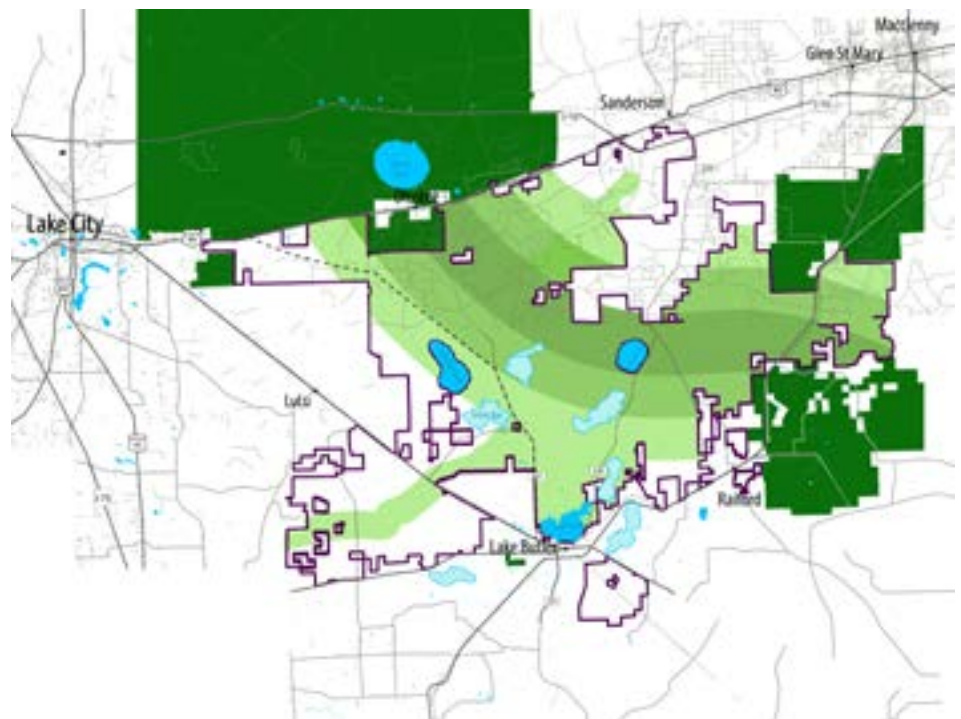


Fig 5.1 Proposed O2O Corridor

The Road

The Northeast Florida district is the third-ranked originating district and the highest-ranked receiving district for shipped goods in the State of Florida, largely due to the presence of the Jacksonville Port. The tri-county study area includes I-75 and I-10, two key roadways in Florida's Strategic Intermodal System, as well as a major rail corridor and several other important state and county roadways. This robust infrastructure results in substantial logistics activity within the tri-county area. While this existing system efficiently links Jacksonville to other cities along the Atlantic Coast and further west in Florida's Panhandle, there are no major roadways that connect Jacksonville to the Gulf Coast of Florida – specifically the Tampa/St. Petersburg region. Due to the vast size of its landholdings, Weyerhaeuser has the unique opportunity to accommodate a new limited access highway across its property, linking I-10 to I-75 and bypassing Lake City. This highway would reduce travel distance from Jacksonville to Tampa by approximately 10 miles, or roughly 12 minutes of travel time. Financially, this equals a gas cost saving of \$3.36 per trip for a semi-truck with a fuel economy of 7.2 miles per gallon.

Florida has a financially strong system of toll roads, so tolling should be considered as one option for funding this roadway; particularly since construction that is compatible with the wildlife corridor will require careful consideration of significant wildlife crossings such as bridges and tunnels. Weyerhaeuser's property is the ideal location for an I-10/I-75 connector for several reasons:

1. The majority of the land along the new alignment is owned by a single entity, reducing the level of complexity in negotiating easements and rights-of-way for construction and operation of the roadway.
2. Weyerhaeuser's property is undeveloped, presenting few obstacles to roadway construction.
3. Weyerhaeuser's property is relatively flat – elevation only changes by roughly 100 feet across the entire holding and the average slope along the path of the proposed alignment is between 0.5% and -0.6%.
4. Land cover across Weyerhaeuser's property is amenable to the construction of a new roadway.

When determining the alignment of the roadway, it was important to consider the location of existing roadways, wetlands, county boundaries, protected lands, and the extent of Weyerhaeuser's

landholdings. The proposed roadway connects to I-10 near Sanderson, then crosses Weyerhaeuser's holding from the northeast corner to the southwest corner, where it eventually intersects with I-75 within Columbia County's borders. Land covers in this region such as tree plantations and natural forests are generally accommodating to new construction; however, some sparse residential developments and agricultural lands near the proposed I-75 interchange may create obstacles to new construction.

The proposed roadway would only be accessible via I-10 and I-75 with a potential third and fourth interchanges at State Road 100 and at the new Palestine Lake development. To reduce visual impact and deter any encroachment within the road's right of way, a tree buffer should be maintained on either side of the roadway. The proposed alignment also utilizes existing wetlands as a secondary buffer between the roadway and potential new communities.

With strategic planning, this new roadway through Weyerhaeuser's property can serve transportation purposes, contribute to the economy of surrounding communities, and preserve valuable environmental assets within the area. We recommend Weyerhaeuser collaborate with the Florida Department of Transportation in evaluating alternatives ways to develop this important regional connection.

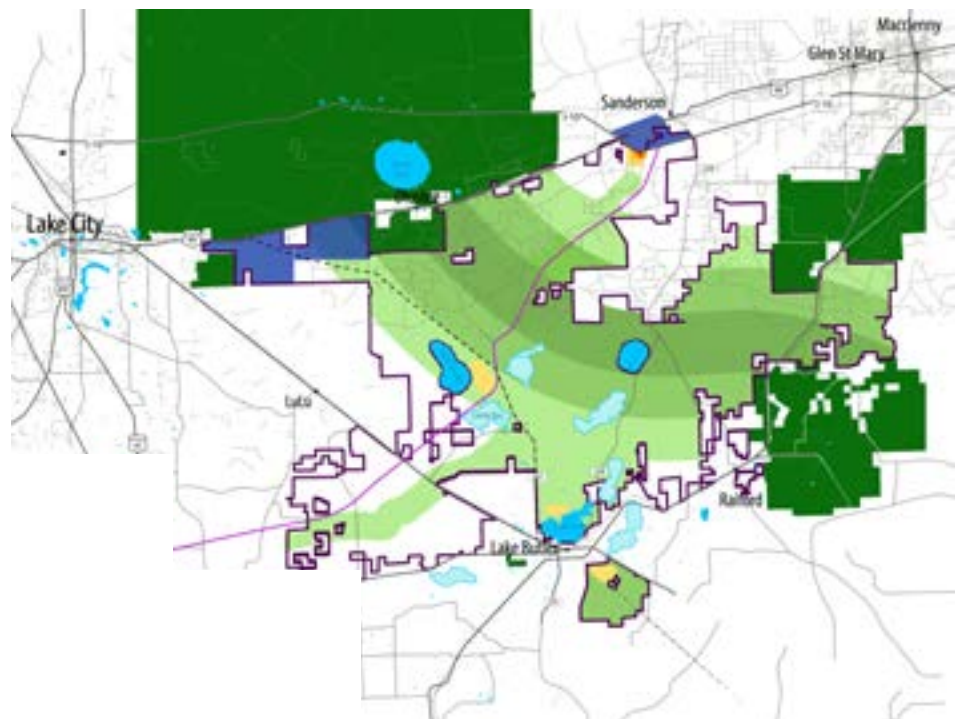


Fig 5.2 Proposed road alignment

New Sanderson

The northeastern quadrant of Weyerhaeuser's land holdings is currently timbered and dotted with wetlands throughout. This area is bounded by Highway 90 to the north and stretches eastward to the City of Sanderson in Baker County. The eastern boundary is formed by Highway 229. A proposed highway across Weyerhaeuser's property could form the southern boundary of any new development that occurs here.

This area would be ideal for supporting a new community due to its proximity to Highway 90 and I-10 and would be well-positioned to absorb new populations moving to Baker County in the coming decades. This location also offers proximity to jobs in Sanderson and a proposed new light industrial area located near the intersection of Highway 90 and I-10. Spread over 1,000 acres, this new community could accommodate approximately 3,500 people and 180,000 square feet of retail and office space. Many of these residents could live and work within the community or have a short commute to other cities in the tri-county area.

This new development would be divided into three character areas: a downtown core, the surrounding "in-town" area, and a suburban-style residential neighborhood. The downtown core, occupying approximately 40 acres, would form the center of the new community and support denser development and a mix of uses. Approximately 600 people could be housed downtown within 120 apartment units and 150 townhomes. Immediately surrounding the downtown core is a less dense urban area totaling 320 acres. This area would also offer a mix of retail, office, and residential uses, but would be more geared toward residential development and could accommodate 1,700 people. The remaining 640 acres of the new community could resemble more traditional suburban neighborhoods and be built to support approximately 500 single family residential homes and 1,250 people. Guidelines related to each of these districts are detailed in Chapter 4 and the appendix.

The northeastern quadrant of Weyerhaeuser's property offers a number of potential locations for a new community. However, to make the community a more viable investment, its placement should consider environmental sensitivities, existing infrastructure, and proximity to Sanderson. The placement of the downtown core shown in figure 5.2 depicts the ideal location for a new development based on a suitability analysis detailed in the appendix.

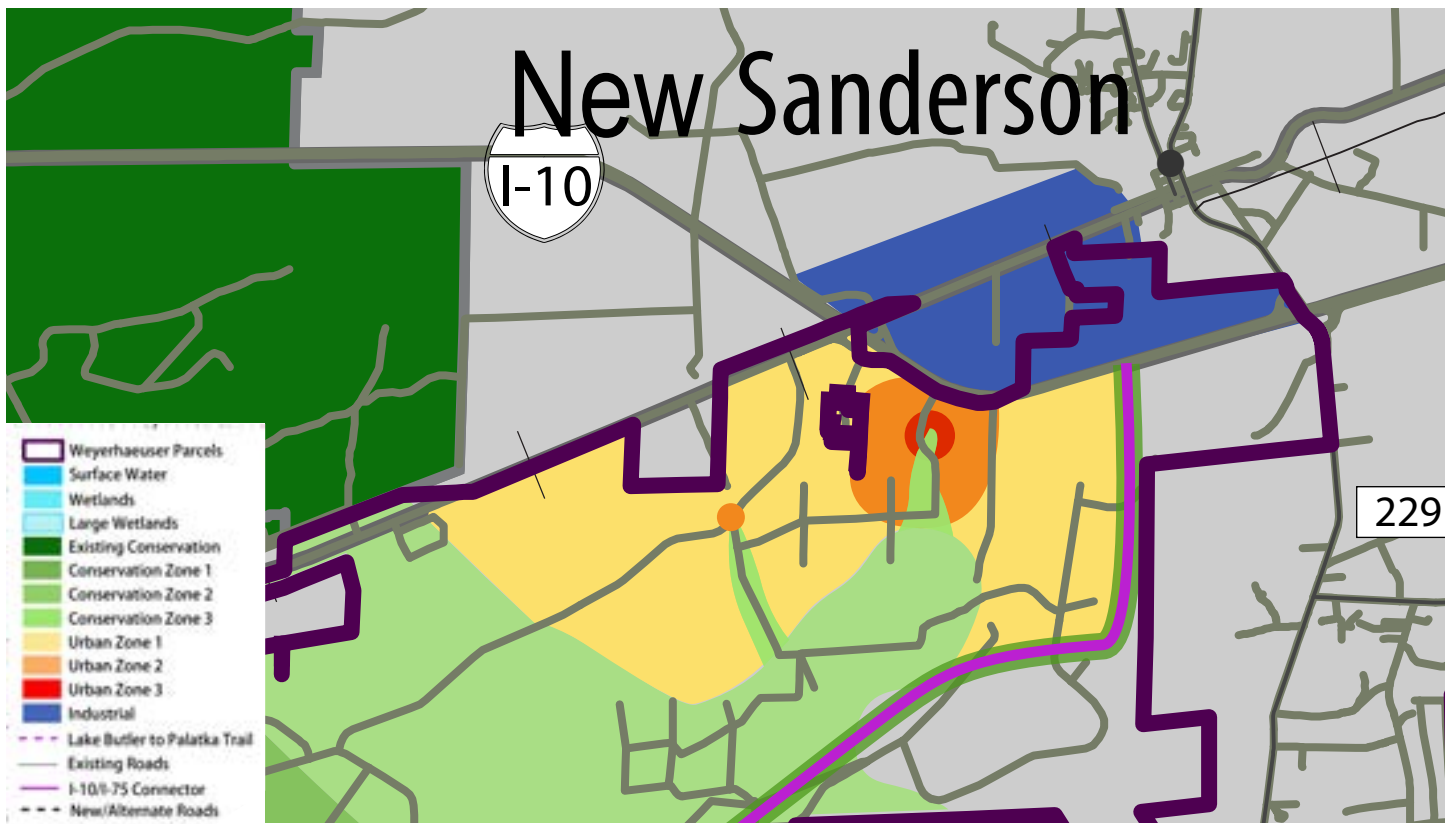
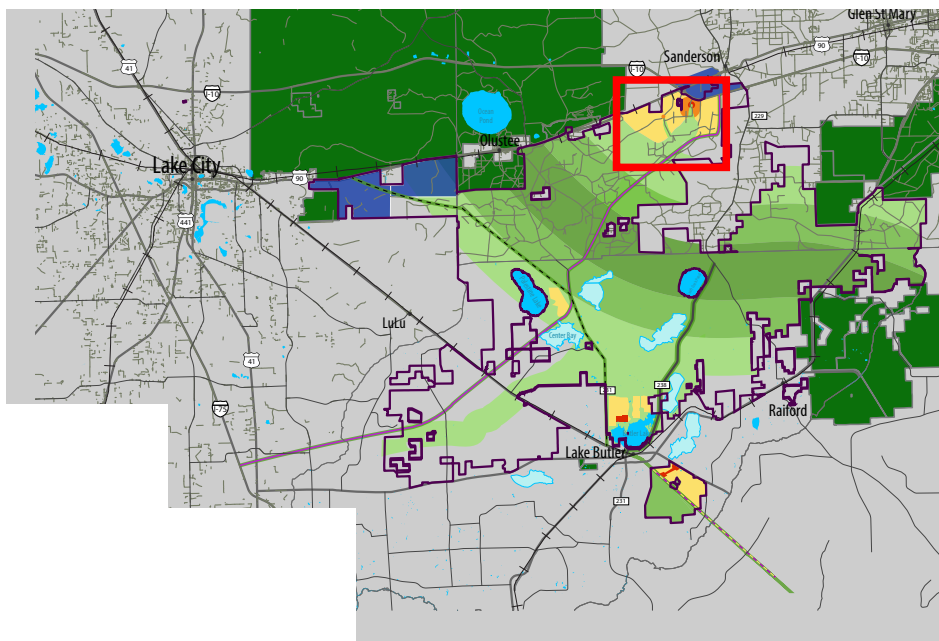


Fig 5.3 Close-up final map of New Sanderson development superimposed with 0.25 mile by 0.25 mile grid.



Total Acreage	4,000
Potential Population	12,500
Number of Housing Units	5,000
Retail/Office Space (sq. ft.)	200,000

Fig 5.4 New Sanderson development in relation to Weyerhaeuser landholdings.

Lake Butler North

Property along the northern shore of Butler Lake is owned by Weyerhaeuser and remains undeveloped, although it can be accessed via County Road 231. Weyerhaeuser has a unique opportunity to create a small, suburban neighborhood on the north side of Butler Lake that is both complementary to existing developments in the surrounding community and conscientious of the natural amenities in the region. The property along the north shore of Butler Lake has high scenic and natural value that may attract homeowners while still being within 3 miles driving distance of downtown Lake Butler. Presently, property north of the lake is covered by tree plantations and wetlands, with a few rural residences along county roads 231 and 238. An unpaved road leads from County Road 231 to the interior of the property. The lakeshore is generally marshy, and wetlands extend from the lake to the west and northeast, acting as natural buffers to development. Given the proposed conservation corridor, the property north of Butler Lake falls into Conservation Zone 3, which allows low-impact residential uses that conform to environmental design guidelines outlined earlier.

The vision for this scenario is a low-density, suburban neighborhood covering roughly 480 acres of undeveloped Weyerhaeuser property. This neighborhood would accommodate around 300 single family homes at a density of one dwelling unit per acre, which supports a population of just under 800 people. Given the high scenic quality of the site and lakefront access to Butler Lake, this development would aim to attract slightly higher-income residents seeking an exurban lifestyle, or those wishing to purchase a vacation or “weekender” home. The development would also include a network of nature trails and wetland boardwalks that would encircle Butler Lake. The property directly adjacent to the lake would be established as a public park for the residents of Lake Butler to enjoy. Efforts should be made to connect this public park to Palatka Trail, which extends northwest across the downtown and terminates at County Road 231. Another road exiting the development to the east and connecting to County Road 238 would also be constructed to improve circulation between the neighborhood and downtown Lake Butler.

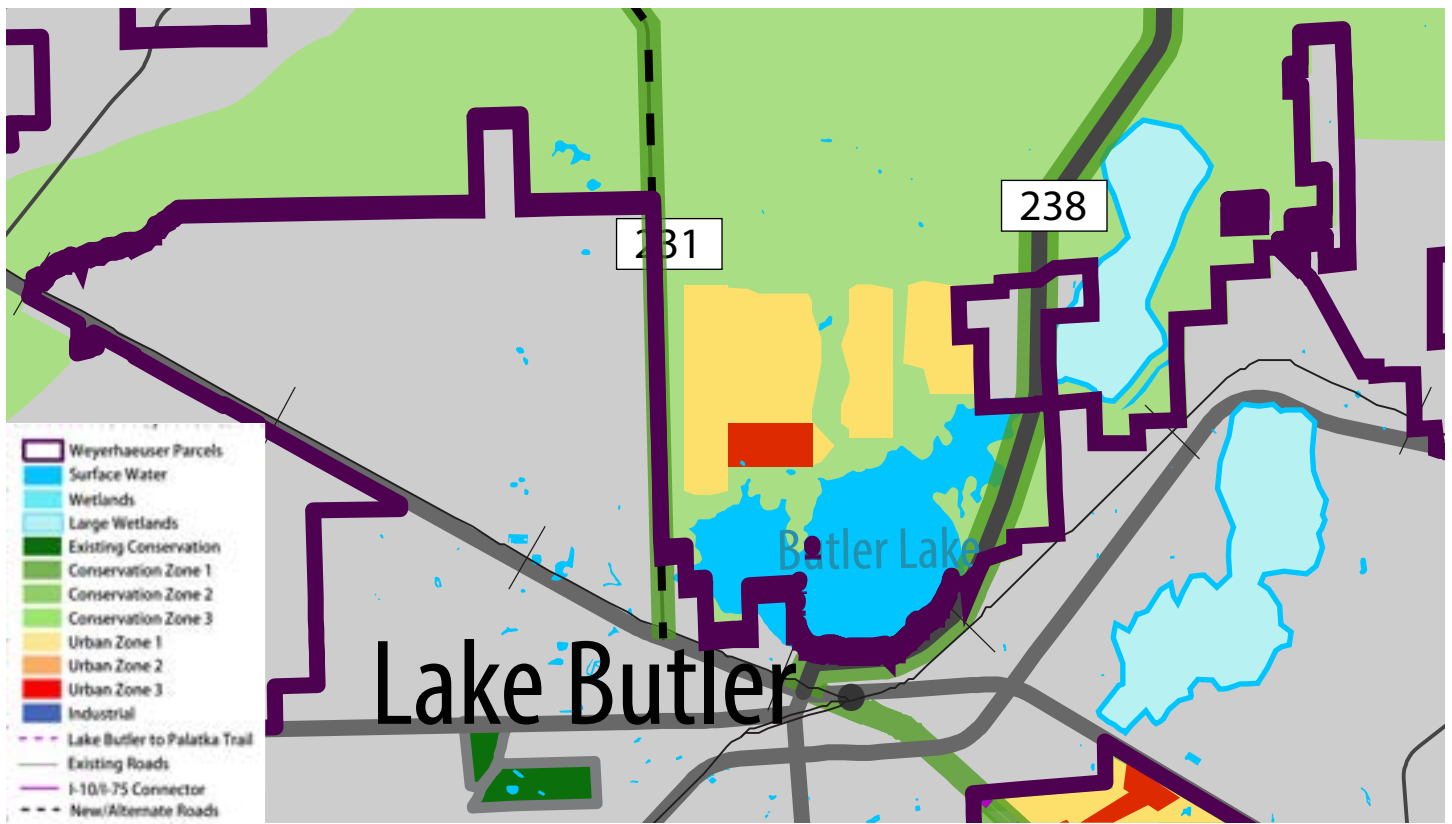
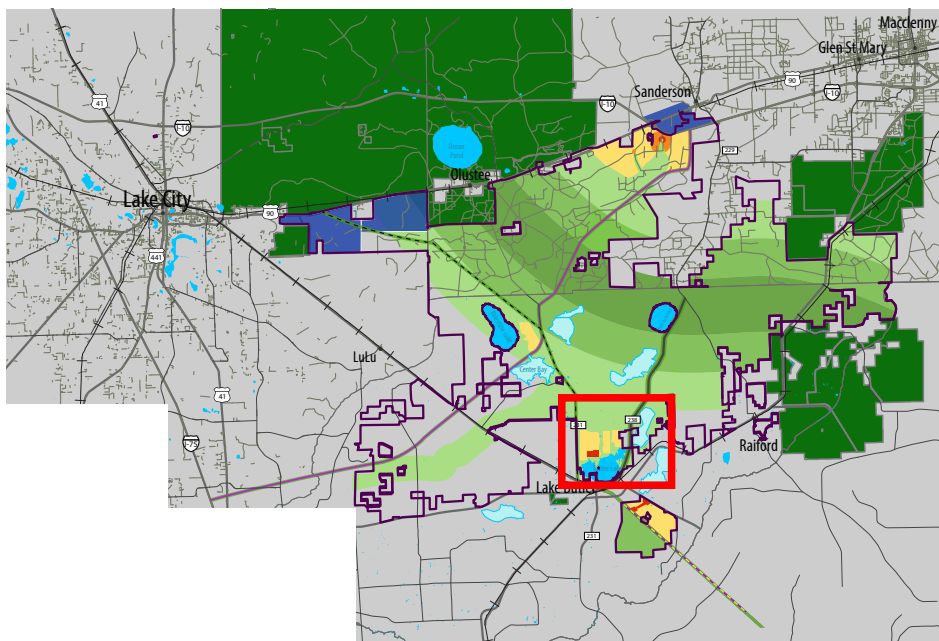


Fig 5.5 Close-up final map of Lake Butler North development superimposed with 0.25 mile by 0.25 mile grid.



Total Acreage	1,500
Potential Population	3,000
Number of Housing Units	1,200

Fig 5.6 Lake Butler North development in relation to Weyerhaeuser landholdings.

Lake Butler South

Weyerhaeuser owns a large tract of land (2,843 acres) southeast of Lake Butler, which is the Union County seat and one of the major existing towns proximate to Weyerhaeuser's property. While Union County's population is only 15,000 people, and Lake Butler's is slightly less than 2,000, the University of Florida's Bureau of Economic and Business Research estimates that Union County could grow by 8,000 residents by 2045. Weyerhaeuser could play a valuable role in the Lake Butler community by providing room for new residential developments to accommodate population growth.

Lake Butler also offers several amenities, including a lake abutting the downtown, a charming lakefront park, and the potential for a vibrant main street, that could draw future residents to the community. Lake Butler is also less than an hour from Jacksonville and has elementary, middle, and high schools, as well as a hospital. The Lake Butler to Palatka Trail, a 47-mile, paved rail trail that is partially complete, bisects Weyerhaeuser's parcel southeast of Lake Butler and could serve as an important amenity and attraction for future residential development. West of the Trail, much of the parcel is covered by wetlands, and should be conserved to preserve its environmental value and also act as a recreational and natural amenity for future residential development. Richard Creek also runs through the parcel. State Route 100, which acts as Lake Butler's Main Street, connects with the parcel and would provide easy and convenient access to downtown Lake Butler (about 1.5 miles via the road).

In this scenario, Weyerhaeuser develops 800 acres of the parcel southeast of Lake Butler for residential development. This development would consist of single family homes, likely at 2 units per acre, and could accommodate up to 1,040 units at this density. Concentrating development in the northeast corner of the parcel facilitates easy access to downtown Lake Butler, the Lake Butler to Palatka Trail, and conserved land in the western half of the parcel. We also propose utilizing Richard Creek as a natural amenity running through the development, potentially acting as a linear park and trail connecting the residential development to the Lake Butler to Palatka Trail and the conserved land in the western half of the parcel. For residents seeking rural character, access to nature and recreational opportunities, all within close proximity to a quaint downtown, this development would meet their needs.

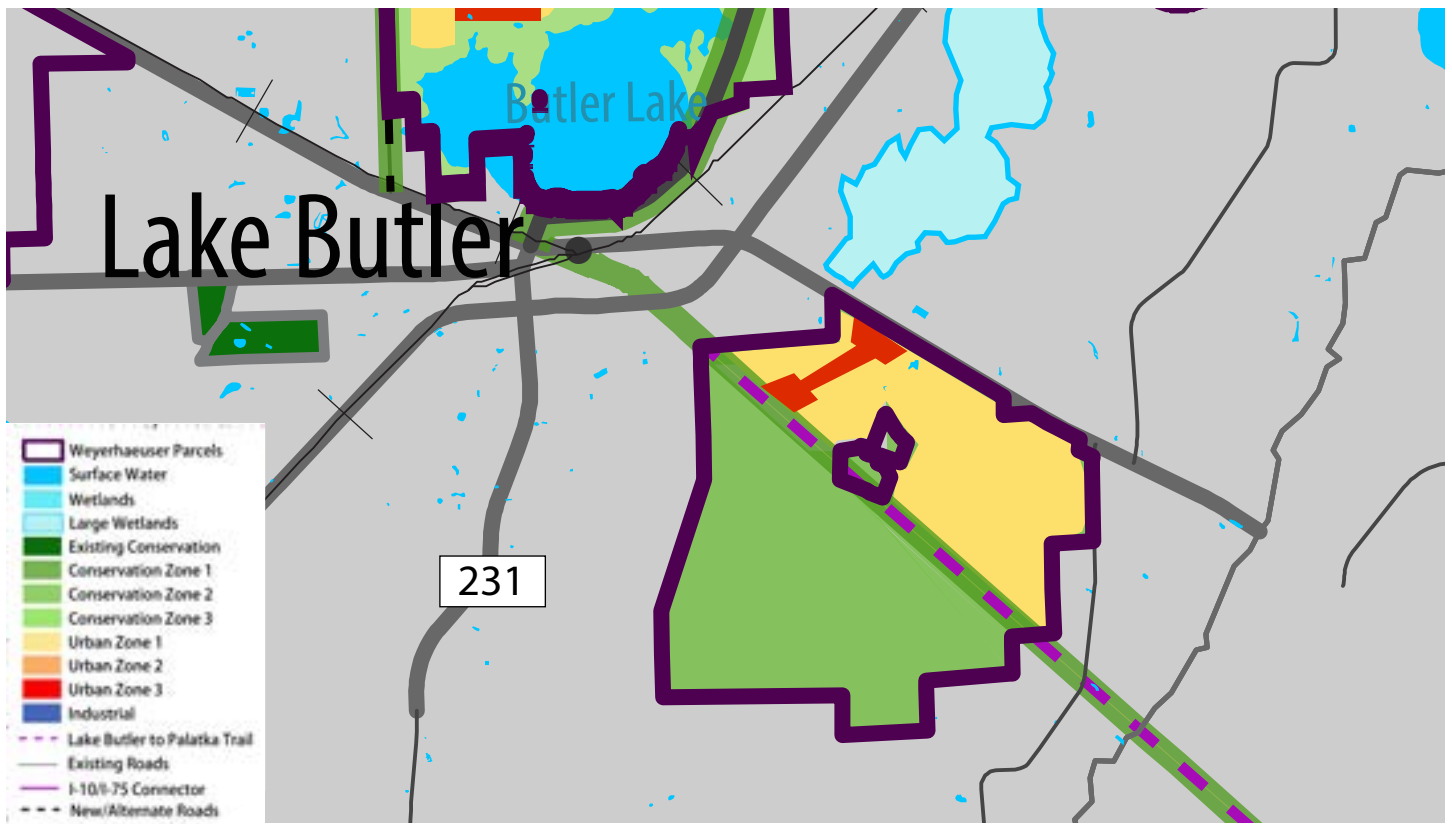
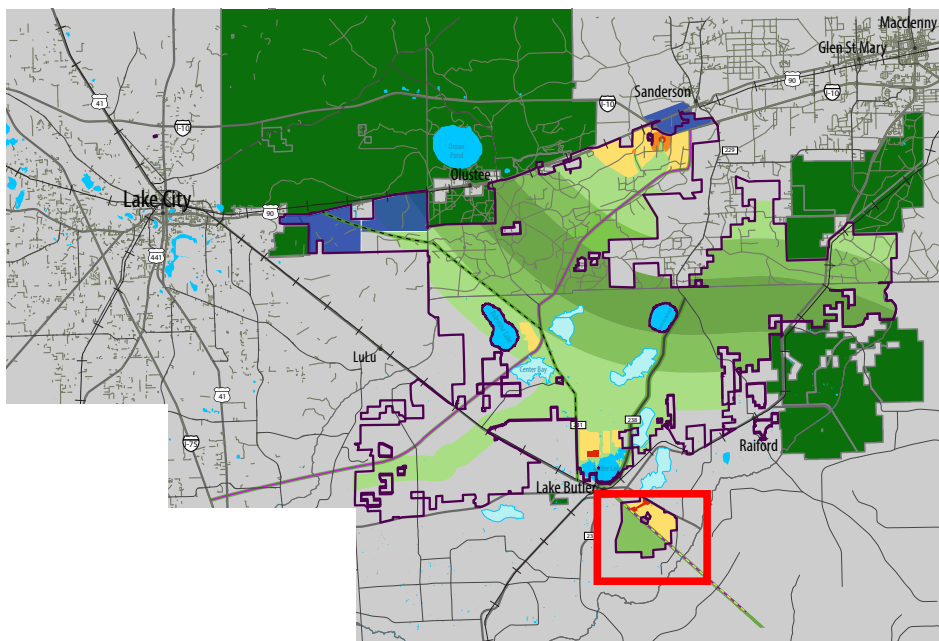


Fig 5.7 Close-up final map of Lake Butler South development superimposed with 0.25 mile by 0.25 mile grid.



Total Acreage	2,000
Potential Population	3,750
Number of Housing Units	1,500

Fig 5.8 Lake Butler South development in relation to Weyerhaeuser landholdings.

Palestine Lake

The Palestine Lake area is composed of Palestine Lake, Wampee Bay, and Center Bay. Despite the names, Wampee Bay and Center Bay are only inundated for part of the year. Both areas are densely forested with various species of native and exotic vegetation. Wampee Bay is also known for the plant that bears its name, the wampee. The slow-growing tree matures at twenty feet in height and grows an edible fruit slightly larger than a grape.

This area is relatively undisturbed and has had minor development in prior decades. Currently there are no households present, as the entire area is owned by Weyerhaeuser. With the exception of County Road 23, which bisects the Palestine Lake/Wampee Bay and Center Bay areas, the area is only accessible by private roads. This area could potentially be the place for high end, exclusive, second-homes in a resort-like setting.

Regional population trends could allow for a potential 1,280-acre development around Palestine Lake. This neighborhood would potentially attract residents who wish to remain in a rural community with lakefront access while still being in close proximity to a network of diverse jobs in the tri-county area. At the proposed density of one dwelling unit per five acres, this area could accommodate 166 homes and approximately 450 people. The neighborhood would be characterized by low-density, single-family residential housing, which is consistent with typical rural developments in Florida. It should be noted that the proposed development would require extensive infrastructure investments in an ecologically sensitive area. Any new development would need to balance these priorities with the natural evolution of the community, as added density and population could gradually increase the need for further infrastructure while also exacerbating environmental degradation. Refer to the maps and table on the facing page for further information.

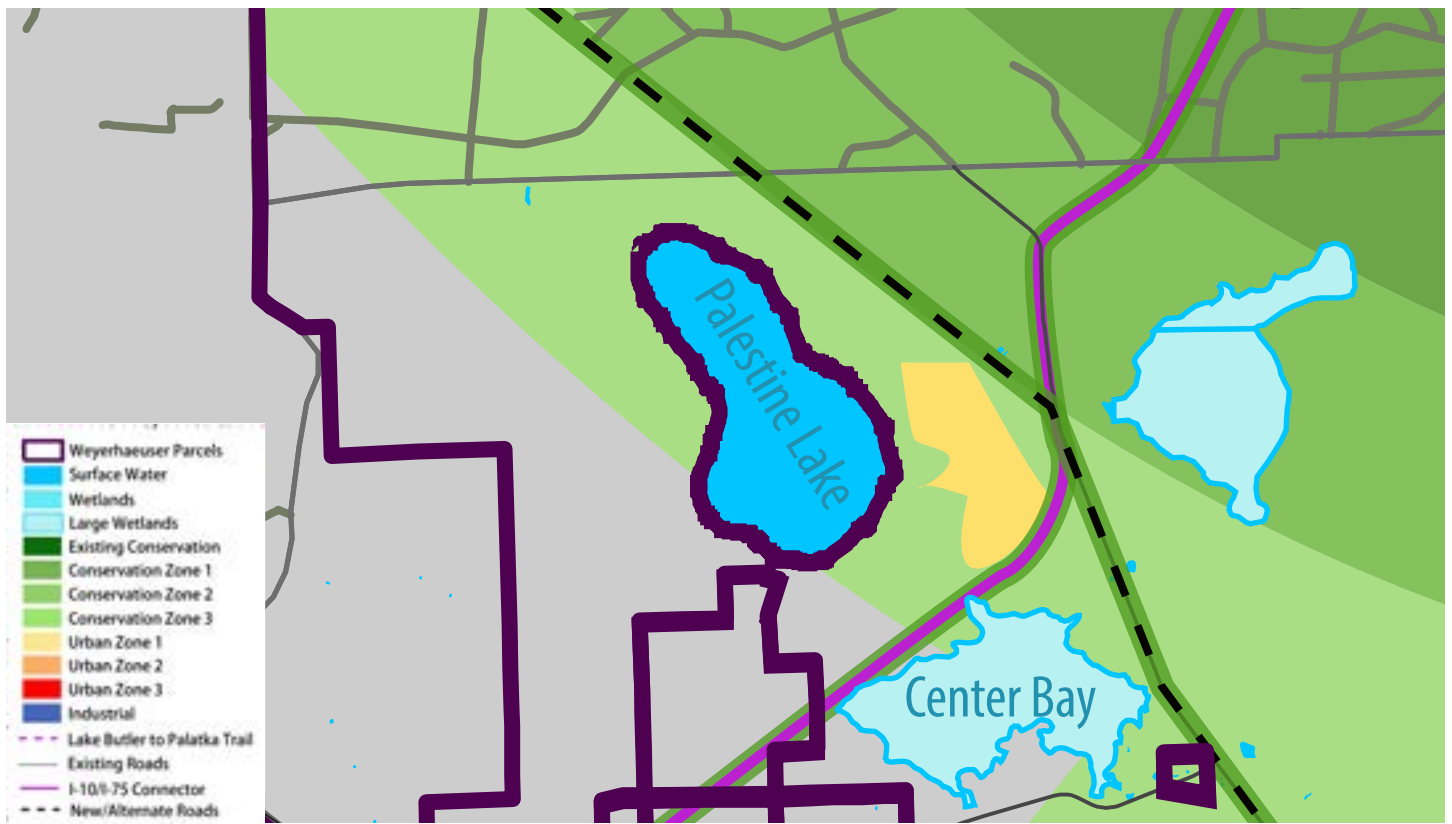
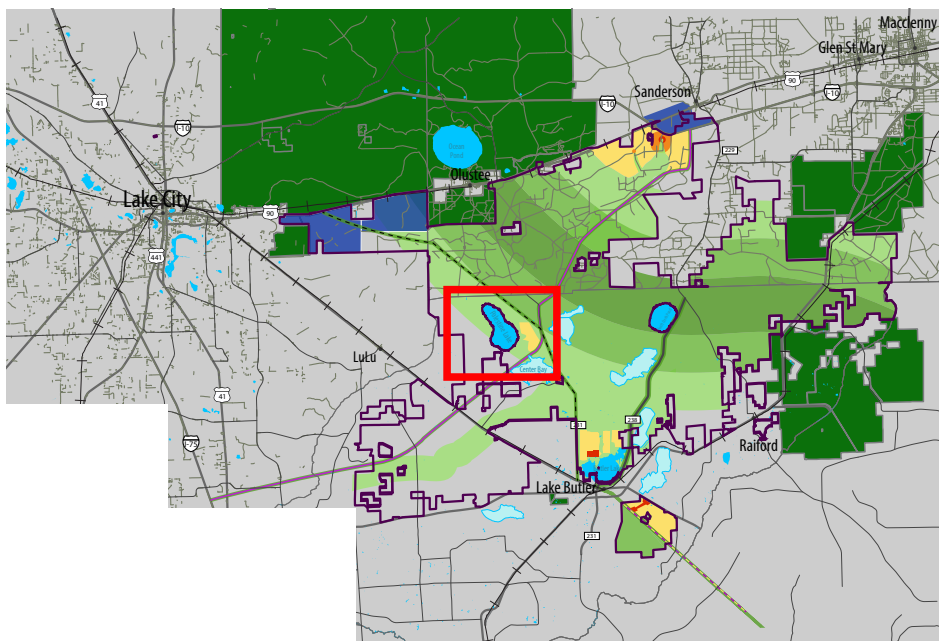


Fig 5.9 Close-up map of Palestine Lake development superimposed with 0.25 mile by 0.25 mile grid.



Total Acreage	1,280
Potential Population	416
Number of Housing Units	166

Fig 5.10 Palestine Lake development in relation to Weyerhaeuser landholdings.



06

Moving Forward

Conclusion

Recommendations

Conclusion

With a vision for conservation that bridges a vital gap between two state forests, a strategy for development that encourages vitality and prosperity, and the underlying goal that these plans retain the character that makes North Central Florida special, Weyerhaeuser can create a lasting legacy through the development scenarios discussed in this report. These two scenarios carefully consider environmental, economic, and community impacts related to development, while also integrating Weyerhaeuser's values of integrity, citizenship, and sustainability.

Tangential to each of these scenarios are design guidelines that aim to provide a vision for new communities. The seven character areas described in this report balance a respect for existing natural resources and communities while also considering forces of change that may impact the tri-county area. These forces of change, which include shifting climatic conditions, forecasted population and economic trends, technological advances affecting key industries, and other broad themes, can have major impacts on North Central Florida over the next century. As the tri-county region is poised to receive up to 50,000 new residents by 2045, Weyerhaeuser can play a significant role accommodating this growth.

Ultimately, these scenarios function as decision-making aids to guide the future development of Weyerhaeuser's land holding. Moving forward, it will be important for Weyerhaeuser to coordinate closely with surrounding communities and municipal bodies; local, state, and national conservation agencies; regional industrial stakeholders; and adjacent property owners to successfully develop these communities. On the facing page, we have highlighted several important recommendations for implementing these plans.

Recommendations



Review regulations

Review the current comprehensive plans and land development regulations for the respective counties.



Site specific analysis

The boundaries drawn in this visioning report, while to scale and based on detailed data such as wetland and road placement, are broad in order to encourage flexibility in placement.



Development regulations

The company must provide estimates of capital investment and growth potential in the creation of a development agreement



Coordinate with agencies and jurisdictions

Coordinate with federal and state agencies, local jurisdictions and special districts.



Collaborate

Collaborate with economic development agencies, including workforce investment boards and educational facilities.





A

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B

Appendix

The Team



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I'm particularly interested in studying the intersection of transportation, development and equity. I'm a journalist by background, originally from New Orleans; I've lived and worked in Miami and Orlando and would like to continue planning in Florida.



Abhishek Behera
MCRP Candidate, Transportation and Land Use
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I am an architect/ urban designer by practice, and interested in visualizing and executing the physical "designed" dimensions of urban planning.



Nico Boyd *MCRP Candidate, Environment & Health*
Interests: Green infrastructure with a particular focus on equity; Urban & Rural Land Conservation; Natural Resource Management
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I am originally from Northeast Ohio and graduated from The Ohio State University in 2012 with a Bachelor's Degree in International Studies. I am currently conducting research on Metro Atlanta's urban forest and am interested in optimizing environmental conservation scenarios within Weyerhaeuser's land holdings for environmental and economic benefit.



Caroline Burnette
MCRP Candidate, Land Use and GIS Certificate
Interests: sustainable development, smart cities, GIS applications in planning
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I was born and raised in Tallahassee, Florida, where I graduated from Florida State University with a degree in civil engineering. I am particularly intrigued by innovative educational opportunities within the Weyerhaeuser land holdings, including exploration of new approaches to forestry practices and timber construction.



Catherine Butler
MCRP Candidate, Housing/Community Development
Interests: Sustainable real estate development, regenerative and net-positive design
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I was born and raised in Columbus, GA and have a professional background in political fundraising. I am currently an intern at the Atlanta Regional Commission in their Natural Resources Department.



Sarah Carnes
MCRP Candidate, Economic Development
Interests: Innovation districts, agglomeration economies, incentives
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A native Georgian, I graduated from The University of Georgia in 2015 with a degree in Environmental Economics. I currently work with Georgia Power's Community and Economic Development Research team. I am interested in creating an economic development plan that capitalizes on the natural amenities and potential industry partnerships within the study region.

**Alex Hanson***MCRP Candidate, Environment & Health and GIS Certificate**Interests: Land conservation, active transportation, complete streets
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I am interested in exploring ways to conserve land, facilitate healthy lifestyles, and spur economic growth in the Lake Butler land holdings.

**Joshua Haston***MCRP Candidate, Land Use, Housing/Community Development and GIS Certificate**jhaston3@gatech.edu*

I am interested in exploring catalytic community-driven developments and their connections to the Weyerhaeuser land holdings. Examining the feasibility of educational and innovation clusters within these holdings align with my previous background experience.

**Shriram Lele***MCRP Candidate, Urban Design**Interests: Activation of urban spaces through urban design tools
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I am an architect from Pune, India. I have worked as an architect for 3 years on variety of projects ranging from residential to commercial. I am interested in exploring design options for urban spaces in the proposed new cities along with ways to understand existing local communities and conserve natural habitat for wildlife.

**Melanie Metal***MCRP Candidate, Environment & Health**Interests: Green Infrastructure, Climate Change, Conservation
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I am a native of Miami, Florida and graduated from the University of Florida with a degree in Geography and minors in Sustainability and Environmental Studies in 2013. After college I gained work experience in environmental consulting in southwest Florida. I hope to contribute an ecological lens to the planning process.

**Chulhong Park***MCRP Candidate, Land Use and GIS Certificate**Interests: Land Planning, Technical Tool Collecting
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I have an urban planning and design degree from Korea. I would like to incorporate my understanding from Korea as well as my knowledge from Georgia Tech to conduct a more realistic analysis to help propose better city and regional planning scenarios.

**Andrew Smyth***MCRP Candidate, Transportation**Interests: Aviation and airport planning, land development
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I graduated from Florida State University in 2015 with a degree in Environmental Science. I was born and raised in South Florida. My recent experience includes preparing and assisting the entitlement process for residential and commercial properties located around West Palm Beach.



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